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I. Introduction

Transportation is essential to achieving a desirable quality of life. The ability of San Antonio and Bexar County citizens to get to work, schools, medical facilities, stores or recreational facilities safely, efficiently and conveniently is crucial to our community's economic, social and environmental health. A viable transportation system provides a number of travel choices, including the ability to travel by bicycle. Whether for business, education, commerce or pleasure, a safe and comprehensive bicycle network is an essential element of every world-class transportation system.

Throughout the development of the San Antonio – Bexar County Metropolitan Planning Organization's (MPO) update to the Metropolitan Transportation Plan (MTP), as well as in other activities undertaken over the past ten years, the citizenry continued to express the desire to have a comprehensive bicycle network.

The City of San Antonio's Master Plan policies, which were approved in 1997, clearly communicate this desire of many citizens that a comprehensive bicycle network of on-road bicycle facilities and off-road hike and bike trails be added to existing infrastructure as well as to new developments.

This Regional Bicycle Master Plan is scheduled to be adopted as part of the MPO's Metropolitan Transportation Plan and is designed to serve as a guide as to where bicycle facilities should be implemented. This Plan fulfills a portion of the City of San Antonio's Master Plan and will assist local agencies in identifying what projects should include bicycle facilities when those projects are funded. In addition, this Plan should be overlaid with roadway maintenance programs to help create the bicycle network.

Therefore, the Regional Bicycle Master Plan is designed to be a guideline for the implementation of bicycle facilities throughout the City of San Antonio and Bexar County. As projects are designed and funding becomes available, bicycle facilities need to be considered and implemented if appropriate. However, the intent of the Plan is not to demolish existing infrastructure in order to provide bicycle facilities but to retrofit as opportunities present themselves and through new development, expand the bicycle network through creating connectivity to and between new destinations of interest. The construction of a countywide bicycle network will result from careful planning and project integration.

This Regional Bicycle Master Plan, as part of the City's Master Plan, and in combination with the City of San Antonio's Unified Development Code (UDC) provides the structure, policy, programs and development guidance necessary to make the bicycle goals outlined in the City of San Antonio Master Plan a reality.

II. Where are We Going and How Do We Get There?

A. Vision Statement

San Antonio and Bexar County recognize bicycling as a clean, healthy and affordable form of transportation and recreation. A comprehensive on-road and off-road bicycle network will make our community a place where bicycling will be desirable for trips of all kinds by all segments of the population.

B. Goals and Objectives

Goal # 1: Institutionalize Bicycling

Recognize and incorporate bicycling as a significant and required element for all transportation, land use, and economic development planning for the San Antonio/Bexar County region.

Objectives

- a. Create full-time Bicycle and Pedestrian Coordinator staff positions at the local governmental and transportation agencies.
- b. Include bicycle transportation in the review process during planning and design of projects as well as during review of subdivision and development proposals to ensure proper inclusion of bicycle, pedestrian and transit needs in plans, projects and design. Require that the following review processes include an assessment of bicycle transportation needs as defined in this plan:

Transportation

- Subarea Transportation Studies
- Design Concept Reports
- Candidate Assessment Reports
- Corridor Studies

Land Use and Economic Development

- Comprehensive Plan
- Master Development Plans
- Standard New Development
- Subarea Plans
- Greenways

- c. Coordinate bicycle planning with other communities and agencies through participation in the MPO's Bicycle Mobility Task Force.

- d. Conduct periodic surveys of bicyclists in the San Antonio/Bexar County region to determine bicycle use patterns and collect other information useful in development of the local bicycle network.
- e. Assist local agencies, neighborhood groups and user groups in developing future neighborhood and corridor plans for bicycling.

Goal # 2: Build the Network to Increase Ridership

Create a comprehensive on-road and off-road bicycle network throughout the San Antonio/Bexar County region.

Objectives

- a. Promote uniform facility design and implementation throughout the San Antonio/Bexar County area.
- b. Plan and prioritize reasonably direct routes between major activity centers while emphasizing the use of collector streets to increase bicycle access throughout the urban area.
- c. Maintain and improve the quality, quantity and operation of bikeway network facilities.
- d. Create a regional off-road system of creek-based linear parks connected by hike and bike trails.
- e. Connect existing bicycle facilities and eliminate gaps in the region's current bicycle network.
- f. Establish and maintain a GIS database of all regional facilities and develop a regional bicycle facility map.
- g. Develop standards for bicycle parking in existing and new land use development including possible changes to local parking ordinances.
- h. Continue to work with VIA Metropolitan Transit to further integrate bicycling with the transit system.

Goal # 3: Find the Funding

Identify and secure local, state, federal and private funding to expand and improve bicycle transportation facilities and programs in the San Antonio/Bexar County region. Create a continuing local source for bicycle funding.

Objectives

- a. Identify and obtain adequate funding from local, state and federal sources for bicycle improvements to the bicycle network.
- b. Seek grant sources for additional bicycle funding as well as private funding.

Goal # 4: Make Bicycling Safer through Education and Enforcement

Develop a program to educate elected officials and the general public concerning the opportunities, benefits, and safety aspects of bicycling in the San Antonio and Bexar County region.

Objectives

- a. Work with the MPO's Bicycle Mobility Task Force and other organizations to create and promote bicyclist and motorist safety and education outreach programs.
- b. Improve bicycling safety through the enforcement of bicycle rules and regulations.
- c. Promote greater respect for bicyclists by other roadway users with a continuous on-going "Share the Road" campaign.
- d. Increase public information through the development of a regional interactive bicycle web site.
- e. Continue to use Hike & Bike Month as a forum for education and promotion of bicycling activities.

III. Background

In early 1975 the City of San Antonio Department of Planning and Community Development published a draft Bicycle Master Plan. That plan recommended a network of corridors suitable for development of bikeways. The Bicycle Master Plan was accepted by various public agencies such as the Planning and Zoning Commission and the San Antonio River Authority. It was also presented to the City Council but not adopted as City policy at that time.

In December 1994 the San Antonio – Bexar County Metropolitan Planning Organization (MPO) approved a long-range Metropolitan Transportation Plan (TransVision 2015) which contained a Bicycle Mobility Plan. Goals of the 1994 Bicycle Mobility Plan were to 1) double bicycle ridership by 2005, 2) decrease the bicycle accident rate by 15% by 2005 and 3) increase the awareness of bicycling as a valid form of transportation throughout the community. The Bicycle Mobility

Plan called for the creation of the MPO's Bicycle Mobility Task Force as well as identification of bicycling funding and the appointment of full-time bicycle coordinators within the City and County.

Throughout 1996 and 1997, the MPO funded the Community Based Bicycle Planning Study that built on the Bicycle Mobility Plan and recommended over 150 bicycle routes totaling 463 miles. Additionally it recommended adding 13 new bicycle corridors to the 1994 Bicycle Mobility Plan network. To date, none of this study's recommendations have been accomplished.

In May 1997 the San Antonio City Council approved the City Master Plan that included goals supporting bicycle transportation:

- Neighborhood Goals, Policy 5d – “Create pedestrian ways, people mover systems and bicycle trails to connect downtown with adjacent neighborhoods, open spaces, retail, medical and other support facilities”;
- Urban Design Goals, Policy 3b – “Plan and develop a citywide system of linear parks and hike and bike trails which incorporate drainage ways and open spaces which link parks, schools, institutions, and neighborhoods”;
- Urban Design Goals, Policy 5h – “Promote the safe use of bicycles as an efficient and environmentally sound means of recreation and transportation by encouraging a citywide network of lanes, trails, and storage facilities.”

In December 1999, the MPO Metropolitan Transportation Plan (Mobility 2025) updated the 1994 Bicycle Mobility Plan. Mobility 2025 also established a recommended bicycle facilities funding goal of 6% of the MPO's Surface Transportation Program – Metro Mobility (STP-MM) funding which was approximately equivalent to \$1 million per year.

During 2000 and 2001, the MPO funded a Bicycle Route Suitability Study. The purpose of the study was to collect data on 1,000 miles of regional roadways and identify those routes most suitable for a regional bicycle network. The data was processed through a Bicycle Level of Suitability Model resulting in identifying 700 miles of potentially usable roadways within the region. The Bicycle Route Suitability Study is one component of the recommended bicycle network proposed in this Bicycle Master Plan.

Also in 2001, the San Antonio City Council approved the new Unified Development Code (UDC) that required bikeways on specified types of roadways as part of new development or infill redevelopment when enabled by this Bicycle Master Plan.

IV. Public Involvement and Community Support

A. San Antonio – Bexar County Metropolitan Planning Organization

Throughout the development of the San Antonio – Bexar County Metropolitan Planning Organization's (MPO) update to the Metropolitan Transportation Plan (MTP) in 1994, 1999 and 2004, as well as in other activities undertaken over the past ten years, the citizenry continues to express the desire to have a comprehensive bicycle network.

In accordance with the MPO's public involvement procedures for planning studies, the MPO hosts at least one formal public meeting to solicit comments on all alternative strategies to be considered in the early stages of any significant transportation study process. The MPO holds three public meetings throughout many of its planning studies.

Several transportation planning studies funded by the MPO have included a bicycle component supported by public involvement:

- | | |
|--|----------------|
| • Mission Trails Planning Study | October 1993 |
| • Community-Based Bicycle Planning Study | April 1997 |
| • Olmos Park Transportation Management Plan | September 2001 |
| • Bicycle Route Suitability Study | October 2001 |
| • Multi-Modal Downtown Alternatives Analysis | April 2003 |
| • Brooks City-Base Infrastructure Development Plan | May 2003 |
| • East Corridor Multi-Modal Alternatives Plan | May 2003 |

On April 26, 2004 the MPO held a public meeting to receive comments on the draft Regional Bicycle Master Plan. Approximately 70 persons attended the meeting. Attendees were asked to comment on the goals and objectives and the recommended bicycle corridors. The meeting input has been incorporated into the Regional Bicycle Master Plan.

B. City of San Antonio

Community support for bicycle facility planning has also been evidenced through numerous planning processes in the City of San Antonio. The 1997 City Master Plan and the 2001 revision to the unified Development Code (UDC) both include significant references to bicycle facilities resulting from heavy public involvement. Community support in bicycle facility planning has also been evidenced through the City of San Antonio's Neighborhood, Community and Perimeter plans. Table 1 shows those plans that have incorporated bicycle facilities. These plans, once adopted by San Antonio City Council, become integral components of the City of San Antonio's Master Plan. The 1997 City Master Plan, 2001 UDC as well as the neighborhood, community and perimeter plan were all considered in the development of this Regional Bicycle Master Plan.

**Table 1. City of San Antonio
Adopted Neighborhood, Community and Perimeter Plans
with Bicycle Components**

PLAN NAME	CITY COUNCIL APPROVAL DATE	POPULATION	ACREAGE	SQUARE MILES
Arena District/Eastside CP	Dec. 4, 2003 Ord. 98562	32,062	5,056	7.9
Highlands CP	April 4, 2002 Ord. 95578	29,864	3,642	5.7
Huebner-Leon Creeks CP	Aug. 23, 2003 Ord. 98049	15,691	3,143	4.9
IH-10 East Corridor Perimeter Plan	Feb. 22, 2001 Ord. 93493	34,139	66,635	99.4
Lavaca NP	Sept. 27, 2001 Ord. 94640	2,659	257	0.4
Mahncke Park NP	Sept. 27, 2001 Ord. 94641	3,408	445	0.7
Midtown Neighborhoods NP	Oct. 12, 2000 Ord. 92700	10,057	936	1.0
Near Northwest CP	Feb. 14, 2002 Ord. 95325	34,231	5,306	8.3
Northeast Inner Loop NP	March 22, 2001 Ord. 93626	8,707	1,586	2.0
Northwest CP	Sept. 24, 1998 Res. 93-35-35	57,500	9,171	14.3
River Road NP	Apr. 4, 1985 Res. 85-24-44	N/A	N/A	N/A
South Central San Antonio CP	Aug. 19, 1999 Ord. 90309	55,000	7,325	12.0
Southside Initiative CP	June 26, 2003 Ord. 97875	7,641	46,944	73
Tanglewoodridge NP	Apr. 28, 1994 Res. 94-21-21	4,010	1,040	1.6
TOTAL		362,626	163,553	249.9

V. Programs and Policies

A. Bicycle Route Suitability Study

During 2000 and 2001, the MPO's Bicycle Route Suitability Study collected data on approximately 1,000 miles of roadways throughout the region. These roads were selected through a comprehensive public involvement process and workshop. The consultant for the study was a nationally respected bicycle expert who created and tested a Bicycle Level of Suitability (BLOS) Model currently being used by many city governments and several state departments of transportation. The data collected was used in two ways: 1) to evaluate the existing BLOS on selected roadways, and 2) to identify candidate roadways as primary corridors to build an on-road bicycle network.

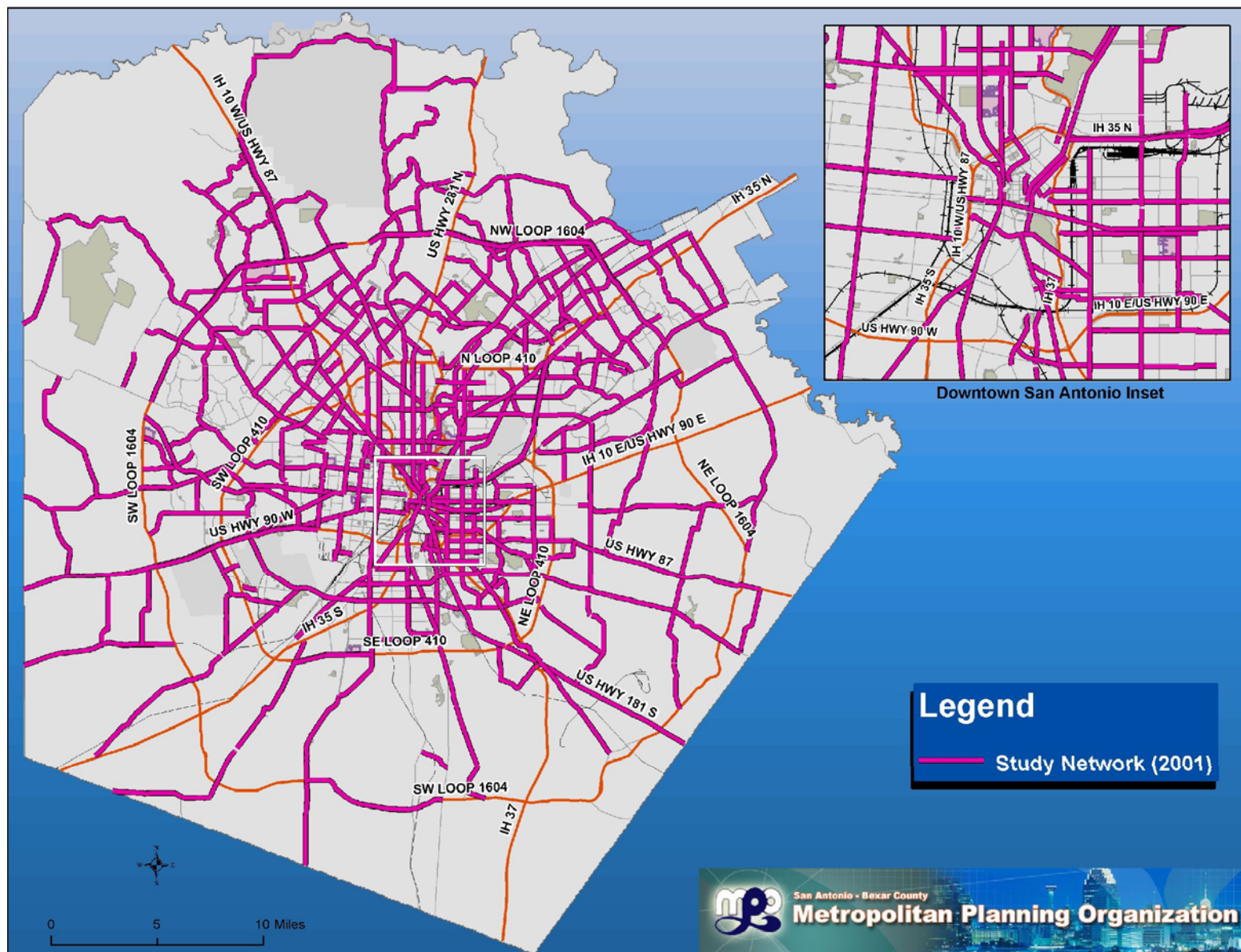


Figure 1. Bicycle Route Suitability Study: 1,000 Miles of Roadways Studied

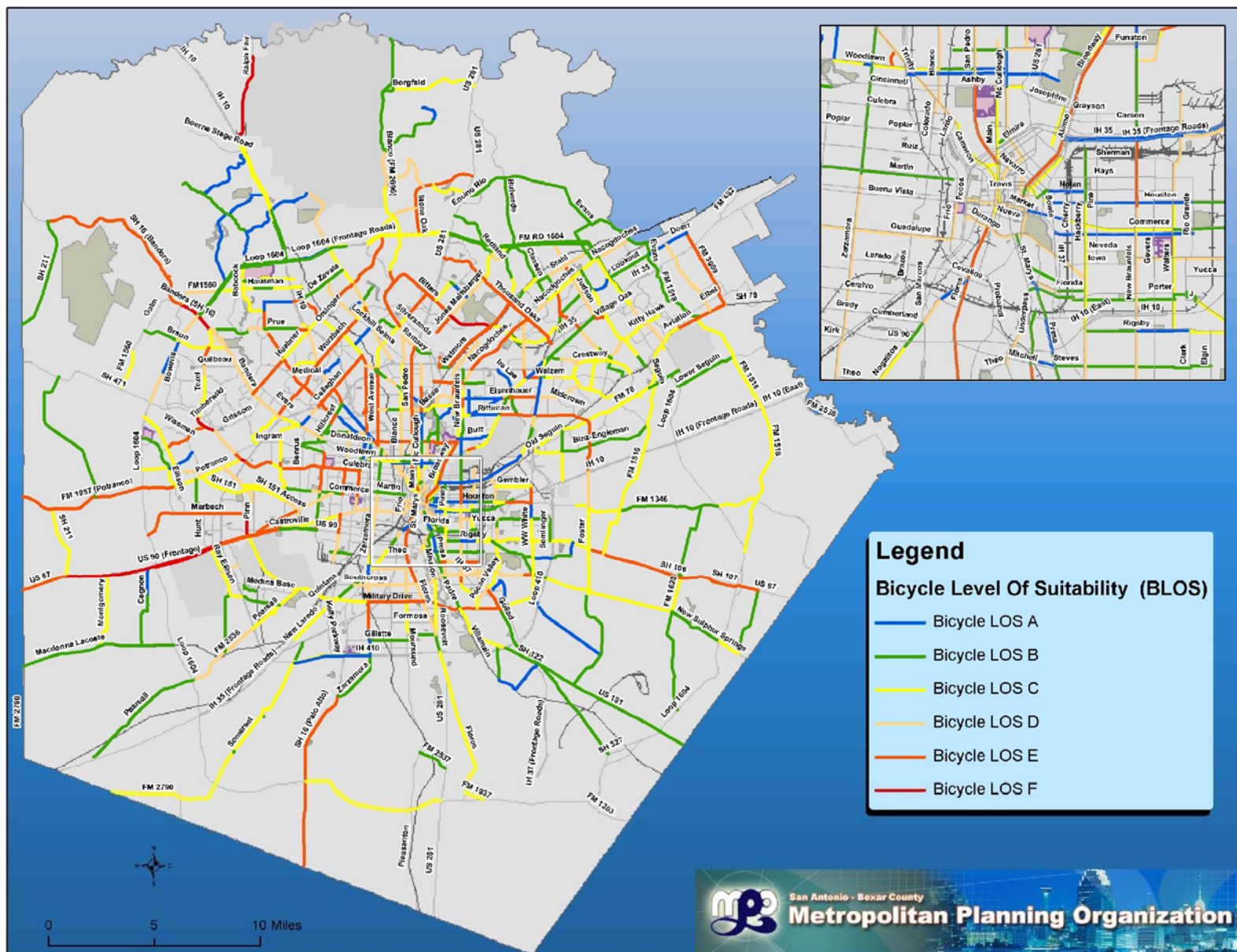


Figure 2. Bicycle Route Suitability Study: Bicycle Level of Suitability

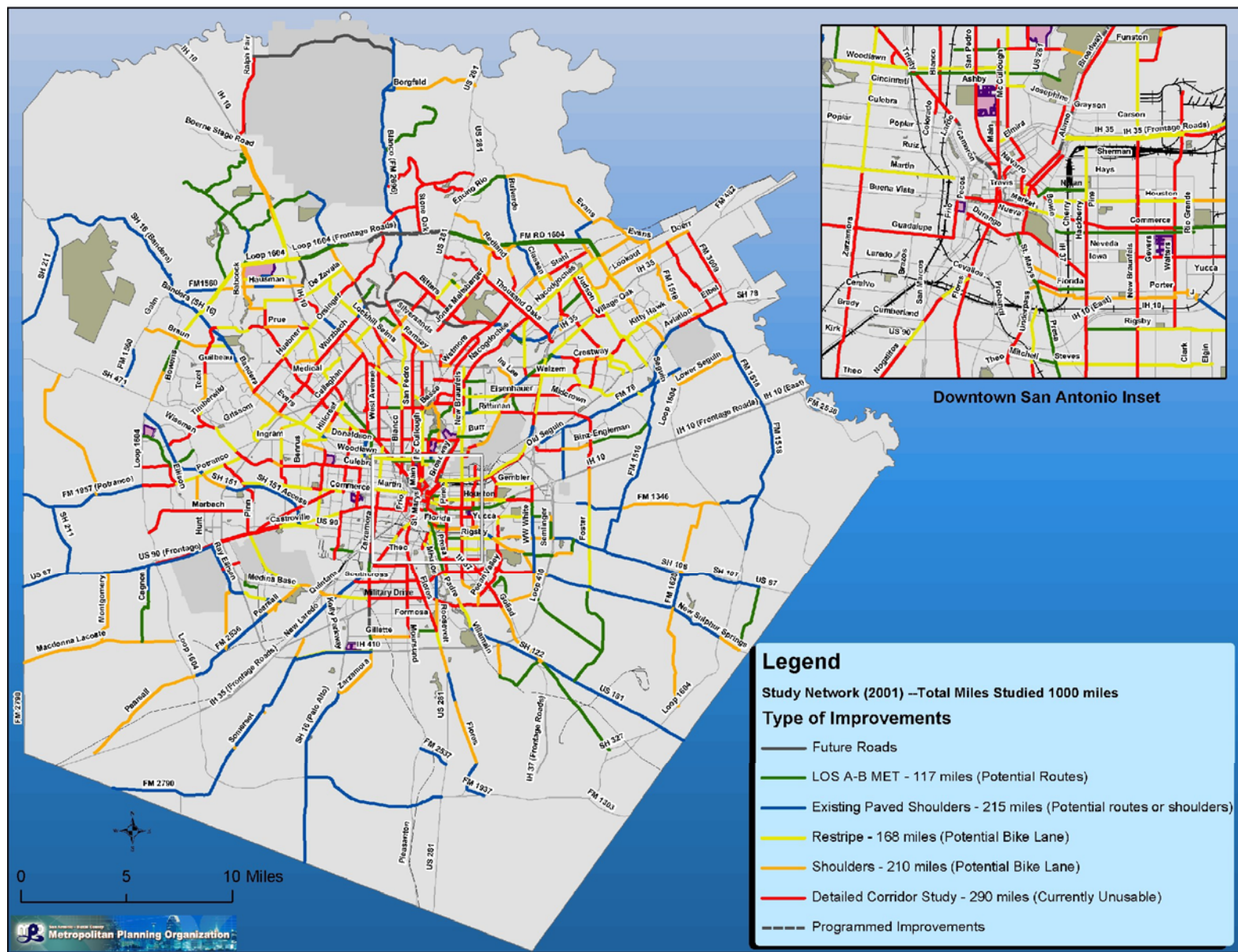


Figure 3. Bicycle Route Suitability Study: Roadways by Type of Improvement Categories

B. Design Guidelines

The City of San Antonio, Bexar County and the Texas Department of Transportation will design bicycle facilities that are in accordance with all design guidelines set forth by the *American Association of State Highway Transportation Officials (AASHTO)*. Along with the AASHTO Guidelines, input from the *Texas Manual on Uniform Traffic Control Devices (TMUTCD)* may be used on various design requirements. Developers or contractors will be required to install bike facilities in such a manner that conform to these requirements as well as the Unified Development Code.

C. Policies

- Bicycle facilities will be considered in all future road improvement projects. Any exceptions will need to be adequately documented by the implementing entity.
- New locations submitted for consideration will be scored with the Bicycle Level of Suitability (BLOS) Model used in the MPO's Bicycle Route Suitability Study described below.
- Bicycle facility design will be considered in the following order: 1) Off-road path, 2) Bicycle lane (dedicated), and 3) Bicycle route (shared)
- Bicycle facilities will not be installed on a roadway with a Bicycle Level of Suitability (BLOS) lower than a "D".
- The installation of a bicycle facility will not degrade the Motor Vehicle Level of Service of a roadway below a "C". Vehicle traffic lanes will be a minimum of 11 feet wide.
- Bicycle facilities located along a roadway with traffic signals shall be designed and installed with all applicable traffic signal modifications included.
- The governing agency of a particular roadway holds the authority in the design or installation of any bicycle facility upon that roadway.

D. Right-of-Way Requirements

Building bicycle facilities on new roadways will normally require the use of designated roadway right-of-way. Each new roadway will need to be examined to determine the type of facility that would be most appropriate for the traffic pattern and adjacent land uses. This examination will be done by the respective Development Services divisions of the City of San Antonio and Bexar County. Appendix E provides a table comparing current and proposed right-of-way requirements.

VI. Transportation Agency and Private Sector Initiatives

A. City of San Antonio

The City of San Antonio has worked over the past few years to bring more bicycling amenities to the citizens. Many projects that currently under way are listed below:

1. City-wide Bicycle Rack Installation – This is a federally funded project that will install 40 new bike racks at key destinations throughout the City of San Antonio in hopes to encourage bicycle usage to these locations.
2. Capital Improvement Program – This is a collection of seven stand-alone bicycle lane projects. With the completion of these projects, a total of 34 miles will be added to the City's bicycle network.
3. Creekways - The City currently has projects in both the Salado and Leon Creek ways that will be including both bicycle lanes and bicycle paths. These types of projects are in hopes to create connectivity near roadways that may not be able to support bicycling in addition create a wonderful atmosphere for recreational usage.
4. Mission Trails – This project includes both on-road and off-road facilities and will create a wonderful recreational biking loop though some of San Antonio's significant historical sites.
5. Bicycle Suitability Map – Working with the other transportation partners, the City of San Antonio provided the local match to produce the region's first Bicycle Suitability Map which is shown below. The bicycle project was funded with Surface Transportation Program – Metropolitan Mobility Funds and is shown below.
6. Work with the MPO's Bicycle Mobility Task Force and other organizations to promote bicyclist and motorist safety and education outreach programs.
7. Improve bicycle safety through the enforcement of bicycle rules and regulations.
8. Create and promote greater respect for bicyclists by other roadway users with an on going "Share the Road" campaign.
9. Increase public information through the development of a regional interactive web-based bicycle facility map.
10. Provide consistent safety messages and training to all roadway users through expanding the range of education through driver licensing and training.

Safety and Education Issues:

1. Placement of new bicycle signs will be equipped with the high intensity sheeting and placed in clear and visible locations along bike facilities.
2. Bicycle signs will convey a clear and concise message to both the bicyclist and motorist.
3. Bicycle maintenance is often an overlooked aspect of safety. We will incorporate bicycle maintenance into the education outreach programs.
4. Enforcement of the rules and laws will be accomplished through education outreach programs.
5. Promote the use of proper communication between bicyclist and motorist through education outreach programs.
6. Promote use of helmets and proper use of helmets through education.
7. Educate motorists regarding bicycle facilities

B. Bexar County

In an effort to make county roads safer for the traveling public, the Bexar County Public Works Division of the Infrastructure Services Department has begun adding paved shoulders to existing county roads where right-of-way and terrain will allow. The added shoulders make it safer, particularly for bicyclists and pedestrians traveling on these roads. Safety is, has been, and will continue to be a primary reason for making improvements to roadway facilities a continuing effort.

This effort began in the spring and summer of 2000 with the addition of four feet wide shoulders on each side of approximately twenty-five miles of county roads.

Bexar County has previously, and intends to continue to:

- Install bicycle warning signs to alert motorists on those County Roads where bicycles frequently ride.
- Add paved shoulders (as right-of-way and funding will allow) to provide safe areas for bicycles along rural roadways.
- Participate in the MPO's Bicycle Mobility Task Force and Hike and Bike Month to the degree staffing allows.

C. Texas Department of Transportation

In February 1994, the Texas Department of Transportation (TxDOT) issued a guidance memo regarding the implementation of bicycle and pedestrian accommodations. The guidance memo recognizes Senate Bill 352 that was passed during the 72nd Legislative Session. Senate Bill 352 directed TxDOT to enhance the use of the state highway system for bicyclists.

This memo recognizes “that every road, with a few exceptions, is a potential bicycle way” and that “on both new transportation projects and to retrofit, over time, the backlog of roadways not currently scheduled for improvement.” Furthermore, “Accommodation for both bicycle and pedestrian traffic shall be considered on all projects, including those under construction where reasonably possible.”

The San Antonio TxDOT District has embraced the concepts of this guidance memo and have incorporated both bicycle and pedestrian facilities on new construction and rehabilitation projects.

D. VIA Metropolitan Transit

The VIA Bike and Ride Program was initiated in 1997 as a result of recommendations made in the MPO funded study, *Integration of Public Transportation and Bicycle Services*. Since then, the program does just that: it seamlessly links bicycling and transit trips.

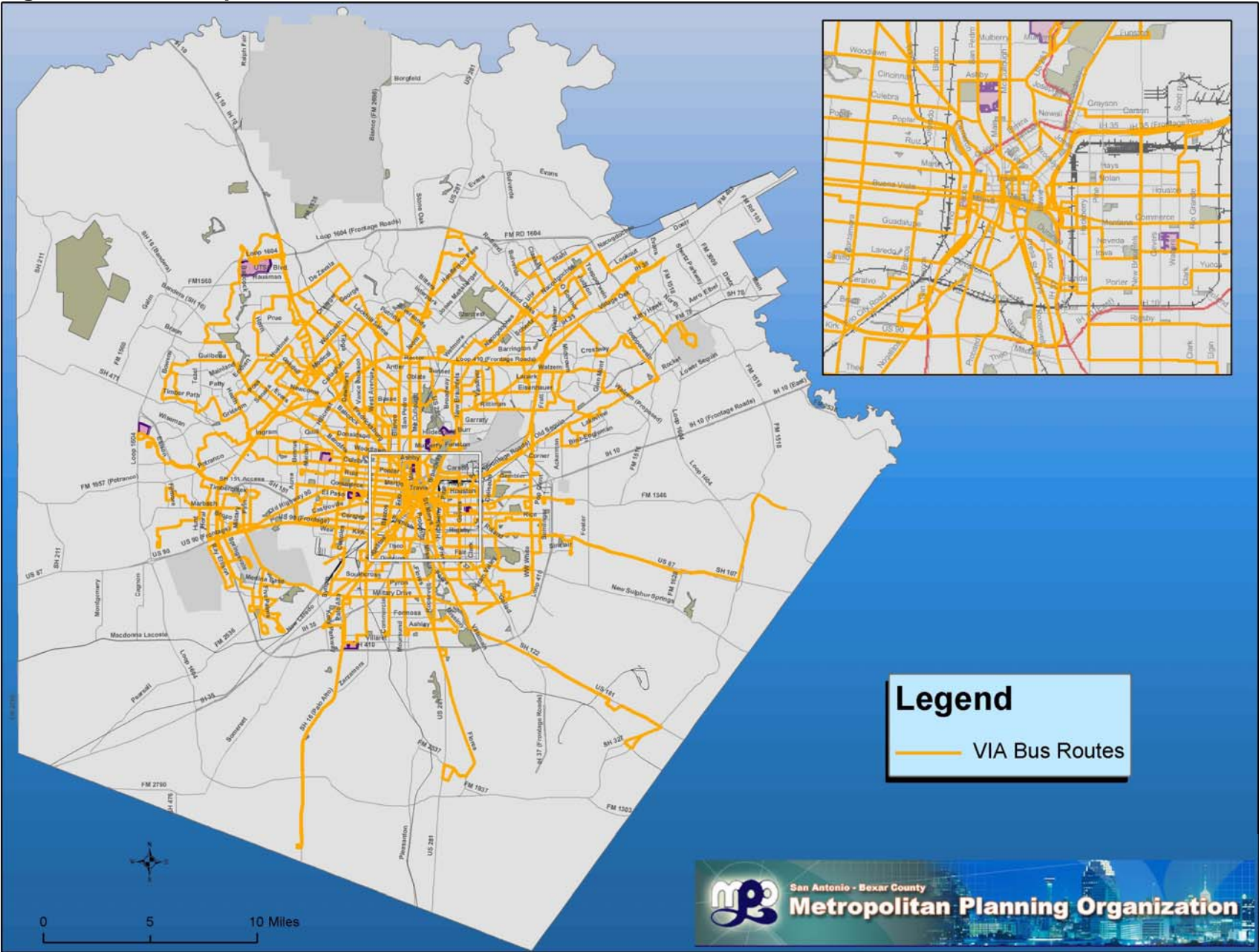
As part of the Bike and Ride Program, the entire VIA bus fleet (excluding downtown streetcars) is equipped with a bike rack for two bicycles so that riders can take their bike wherever VIA goes, and then farther. Bicycle storage lockers are available for a small deposit at six transit facilities throughout San Antonio.



The program serves four broad purposes. First, it creates a link between segments of the current bicycle network and thereby offers bicycle riders a safe, cost-efficient manner to complete trips that are not entirely accessible by bicycle or by transit. Second, it offers bike riders a safe, cost-efficient method to transport their bicycle should they be unable to ride due to weather conditions, bicycle failure, or injury. Third, it promotes physical fitness. Fourth, by linking two environmentally responsible modes of travel, the program contributes to air quality improvement and decreases in traffic congestion.

Figure 4 depicts the VIA fixed route network which covers approximately 700 miles of roads in Bexar County, serving most primary and secondary arterials and certain freeways. Places of interest for bicycling which are accessible through the VIA network include neighborhoods such as King William, Monte Vista, Alamo Heights and Olmos Park and public parks like O.P. Schnabel Park, Brackenridge Park, San Pedro Park, and Mission Trails. Other activity centers accessible through the VIA network are the South Texas Medical Center, shopping malls, schools and universities.

Figure 4. VIA Metropolitan Transit Bus Service



E. Private Sector

Private Sector Support will be imperative in order for this plan and any facilities to be used. Bicycle facilities on roadways, but no place to lock and store bikes at the destinations will effectively render the bike network useless except for recreational purposes. Providing bicycle amenities at shopping malls and movie theaters, for example, should be a major part of the enticement for people to use bikes as an alternate mode of transportation.

VII. Existing and Programmed Bicycle Network

A. On-Road Facilities

As of January 2004, the existing and programmed (i.e., funded) on-road bicycle network consists of approximately 195 miles of bicycle facilities/accommodations representing approximately 70 existing and programmed future projects. These on-road projects consist of two types of bicycle facilities and one safety accommodation:

- Bike Lanes – the safest type of on-road facility with dedicated lane stripings, markings and bike lane signage
- Bike Routes – shared, unmarked roadways generally with wider outside lanes, lower traffic volumes and lower posted speeds. Green bike route signs are posted approximately every 500'. These routes are primarily intended for Class A (experienced) and Class B (adult basic) cyclists.

B. On-Road Accommodations

- Paved Shoulders – a minimum 3' shoulder with a white stripe at outside edge of the vehicle travel lane and yellow bike warning signs for motorists. These are generally found on state and county roads outside the urban area and intended for Class A cyclists.

A listing of existing and funded future on-road bicycle facilities as of January 2004 is shown in Appendix F.

C. Off-Road Facilities

As of January 2004, the region had approximately 10 miles of completed and 23 miles of programmed off-road bicycle paths. The City of San Antonio intends to use its rivers and creekways to create a system of hike and bike trails and linear parks. Mission Trails along the San Antonio River as well as hike and bike projects on Leon Creek to the west and Salado Creek to the east are already programmed and being designed. At this time the following areas are the most currently used off-road facilities:

McAllister Park

McAllister Park is one of the main mountain biking areas in San Antonio. McAllister Park has been a cycling area since the early 1970's. The Park offers primarily a beginner to intermediate riding experience with a variety of terrain. The beginner areas are predominately located near the pavilions, with the intermediate areas on the northern boundaries of the park and on the Airport property.

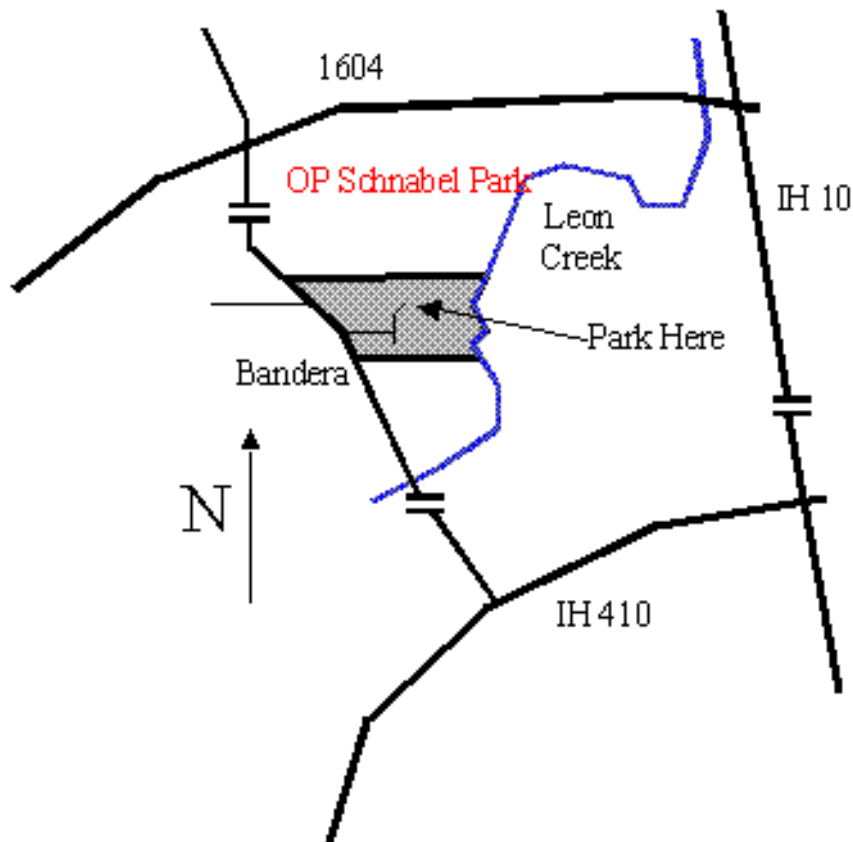
The park entrance is located at 13102 Jones-Maltsberger Road adjacent to the NE Police Substation. When the entrance road T's, go left and proceed to the back of the park to Pavilion #3. McAllister Park is also a favorite jogging/hiking spot in San Antonio, so be prepared to yield the trail.



O.P. Schnabel Park

The majority of the trails are for novice riders, but there are some intermediate trails down in the creek beds. Altogether there are approximately 20 miles of trails within the park. There is a chance of sharing the trails with hikers, so yield the right of way upon encountering one. The Leon Creek Greenway hike and bike project will greatly increase the riding at O.P. Schnabel Park in the future.

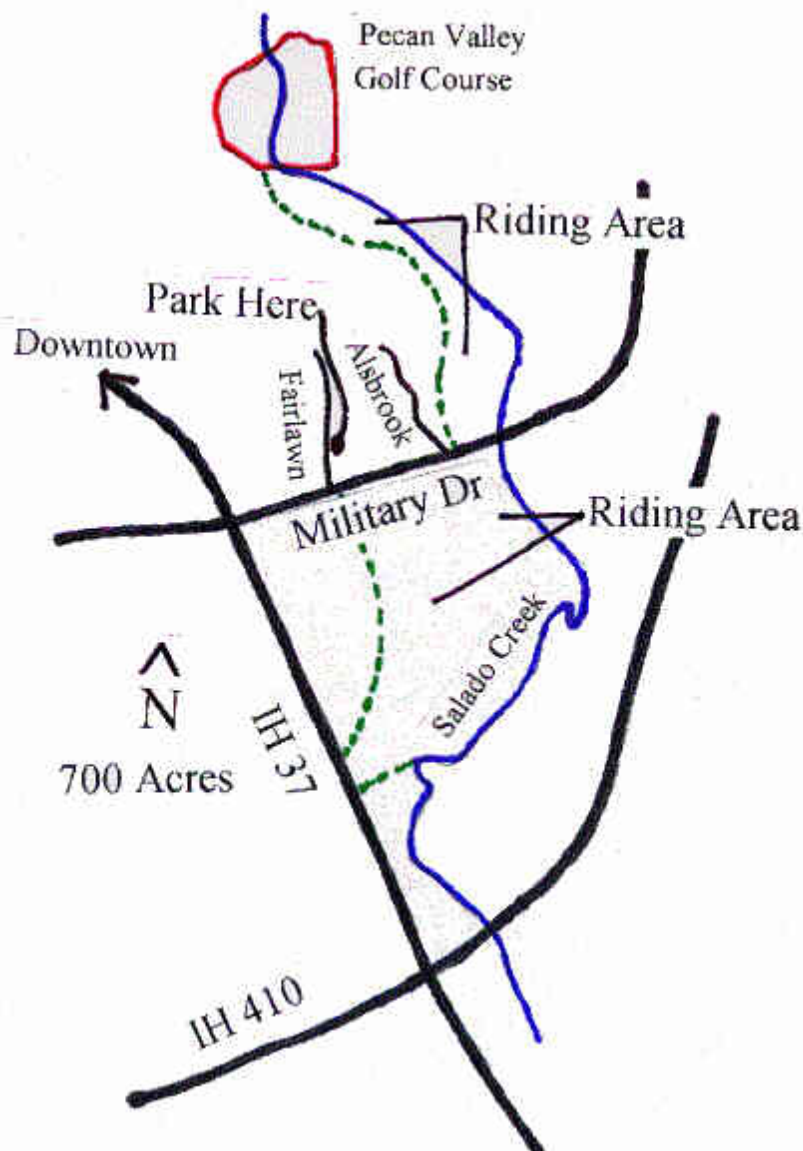
The park entrance is located at 9606 Bandera Rd (SH 16). Turn into the park and when the road T's turn left and park by the pavilion. The trails begin just to the right of the pavilion.



700 Acres

A privately owned tract of land that has been the favorite of off-road motorcyclists for years but also a good riding area for beginning, intermediate, and advanced mountain bikers. A wide range of riding surfaces ranging from packed dirt along Salado Creek to rough, boulder strewn trails lined with desert plants. S.E. Military Drive cuts the area in two and there are four main riding areas. On the north side of Military Drive there are some good warm-up trails running along the creek towards Pecan Valley Golf Course.

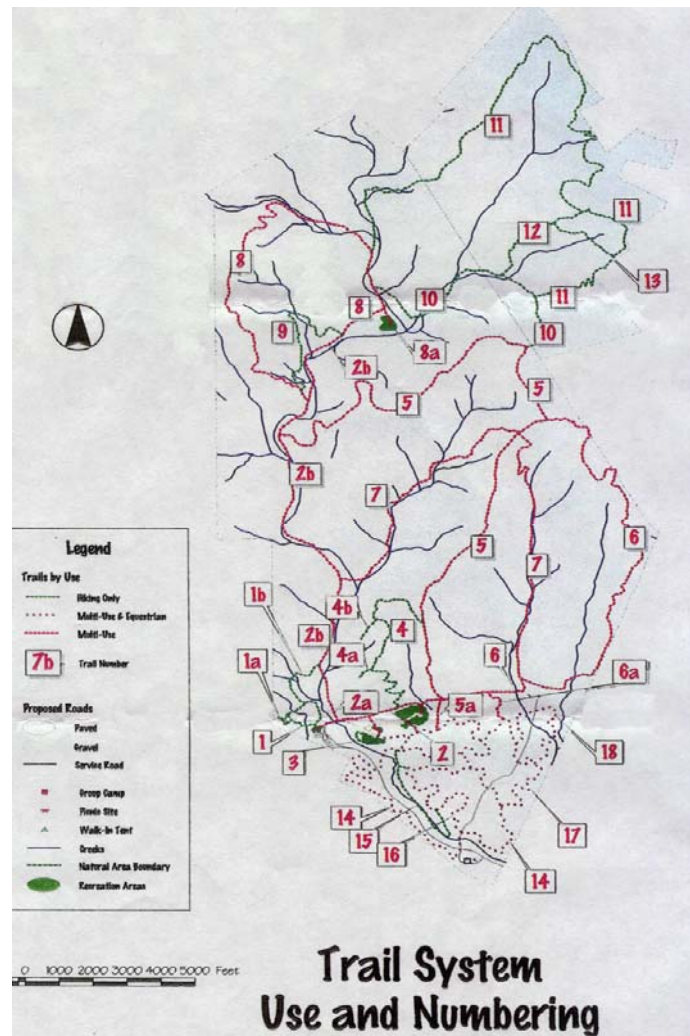
South of Military Drive are three areas - wooded trails along the creek, an open hill area to the west and a flatter plateau area to the south. To go south, you need to follow the trail to the north of Military Drive between Alsbrook and the bridge and follow the trail underneath the bridge. Whether you go north or south you will find an extensive trail system to explore.



Government Canyon State Natural Area

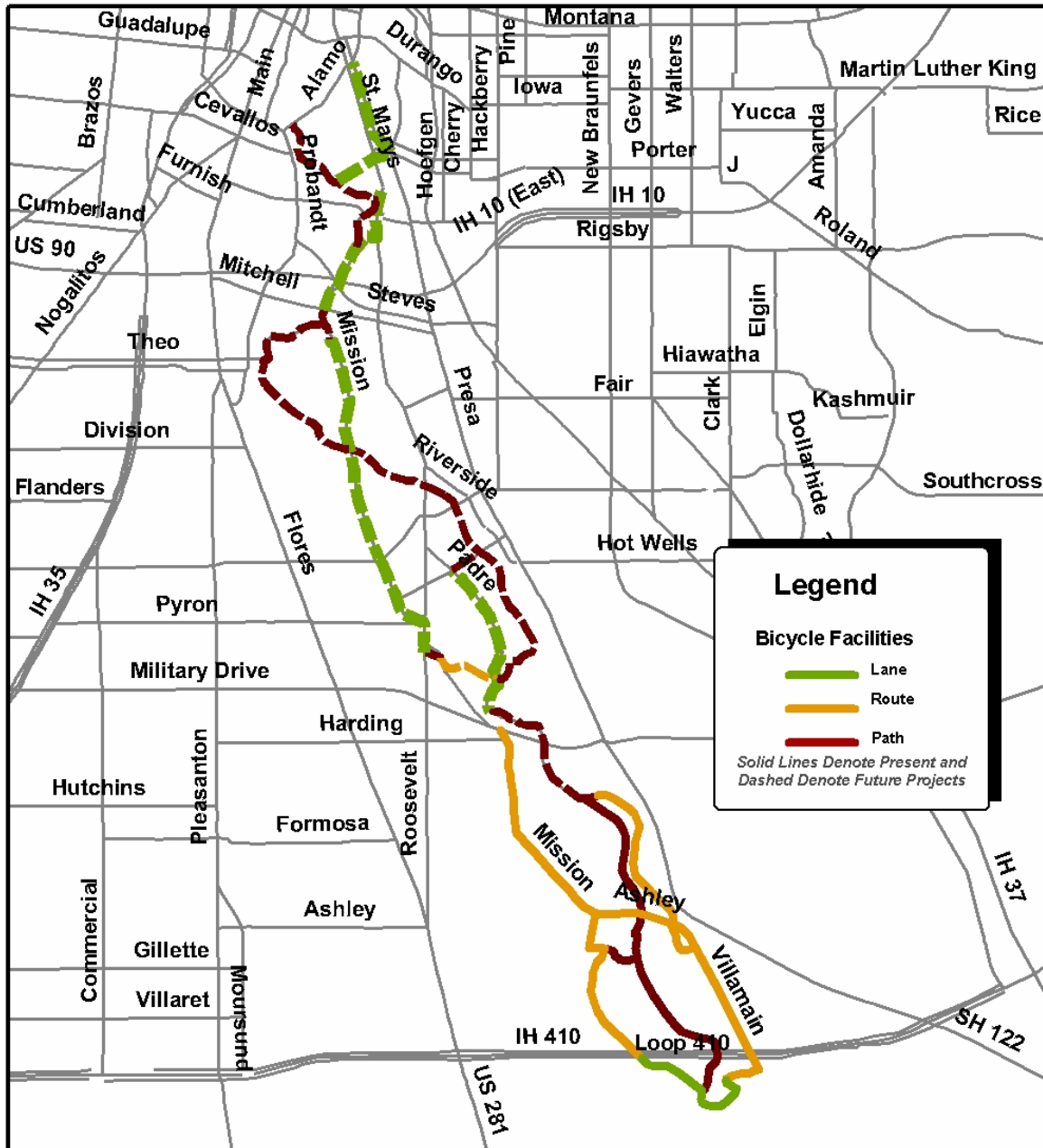
Government Canyon is an approximately 8,201-acre area in Bexar County, just outside San Antonio. The area is currently not accessible to the public, pending development. Projected time of opening is early to mid 2005. Call Government Canyon S.N.A. for the most up to date information.

Directions: From the intersection of Loop 1604 and Culebra Road (also known as FM 471 - back road to Castroville), travel west 3.5 miles to Galm Road. Turn north (right) on Galm and travel 1.6 miles; gate with signs on the left.



Mission Trails

The Mission Trails projects is a 12-mile transportation enhancement project designed to improve accessibility and way-finding among our five historic missions of San Antonio, including, San Antonio de Valero (the Alamo), Concepcion, San Jose, San Juan, and Espada. It includes a network of hike and bike trails as well as a scenic wet route along the San Antonio River that allows for convenient access to the missions.



MISSION TRAILS

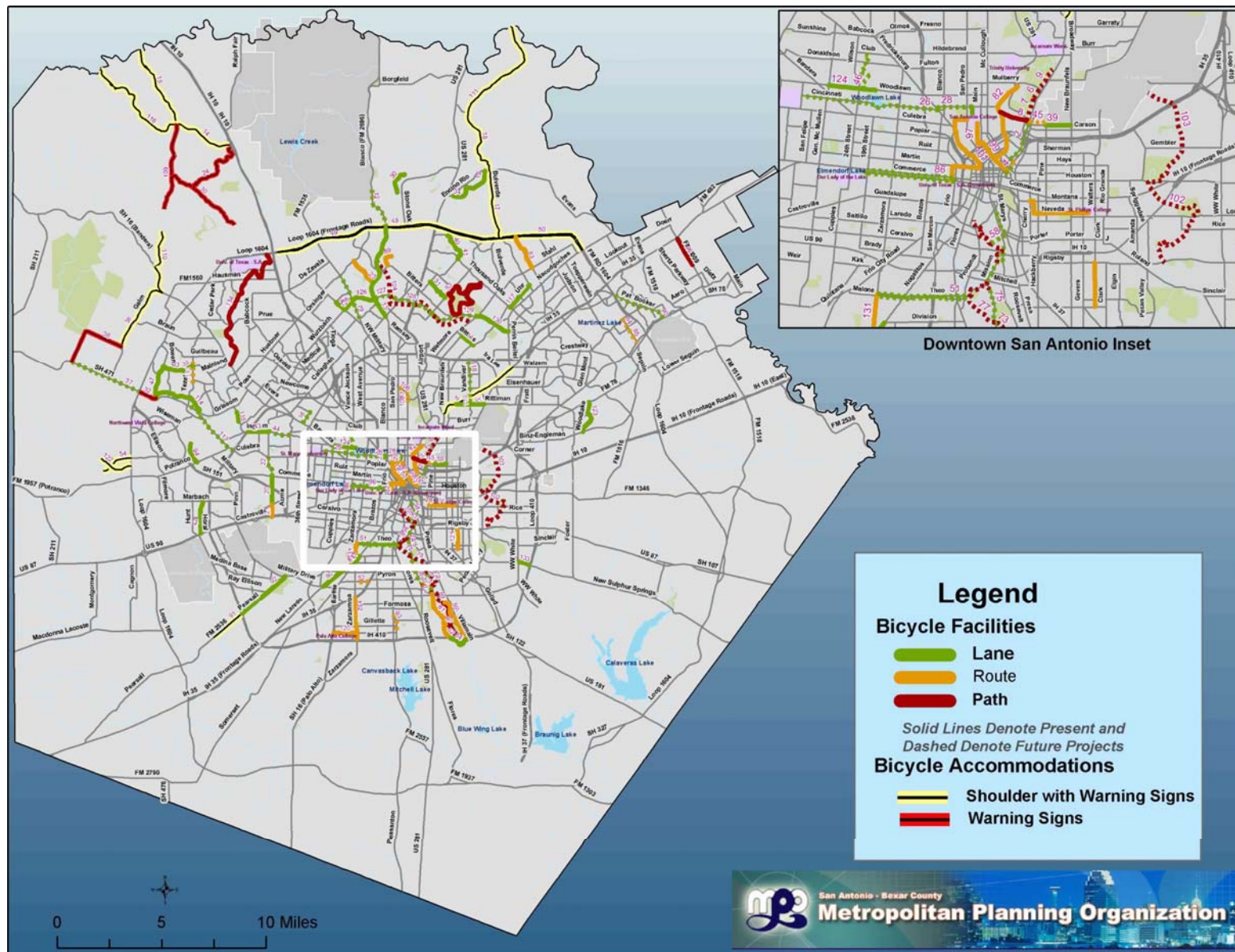
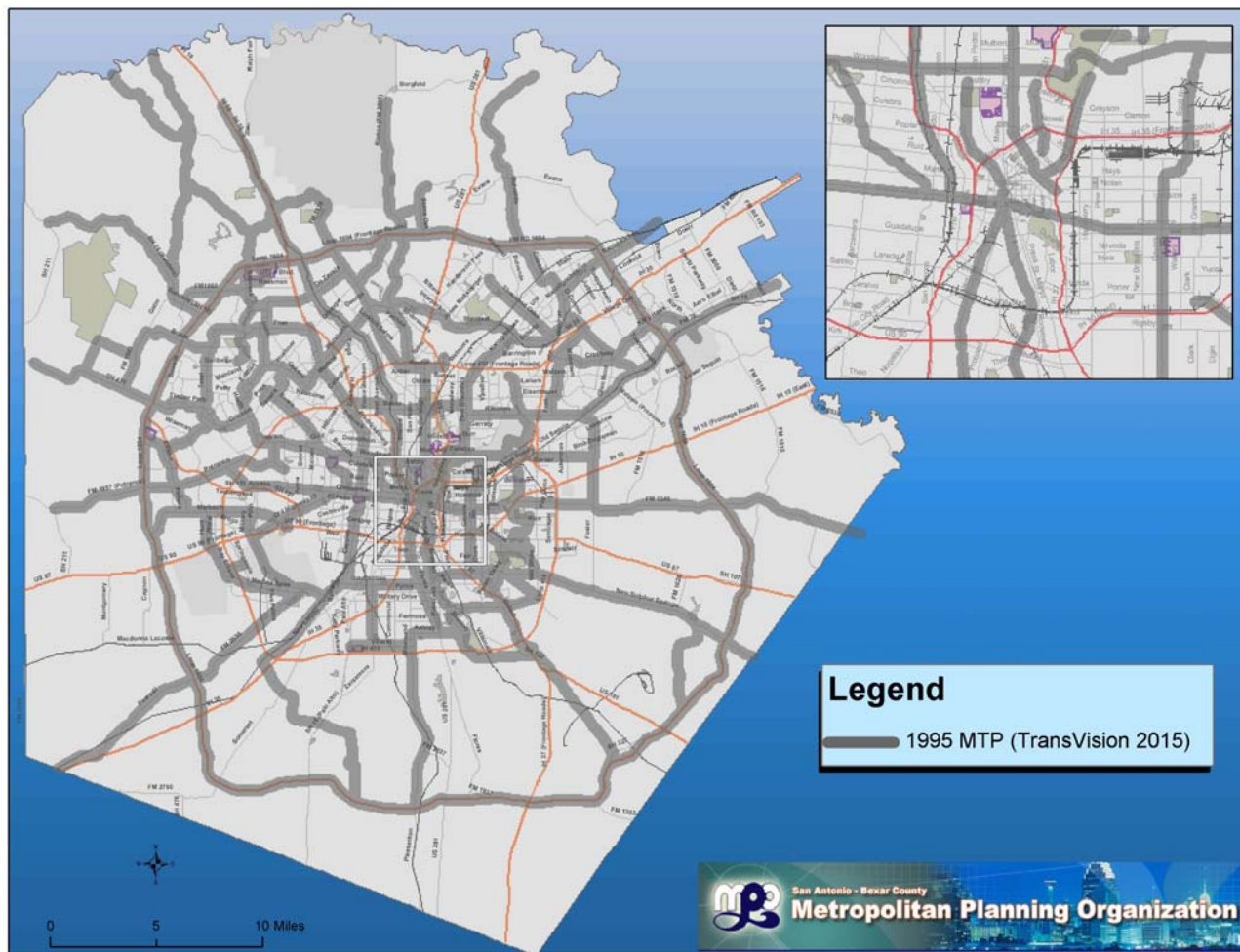


Figure 5. Existing and Funded On and Off-Road Bicycle Facilities

VIII. PLAN DEVELOPMENT

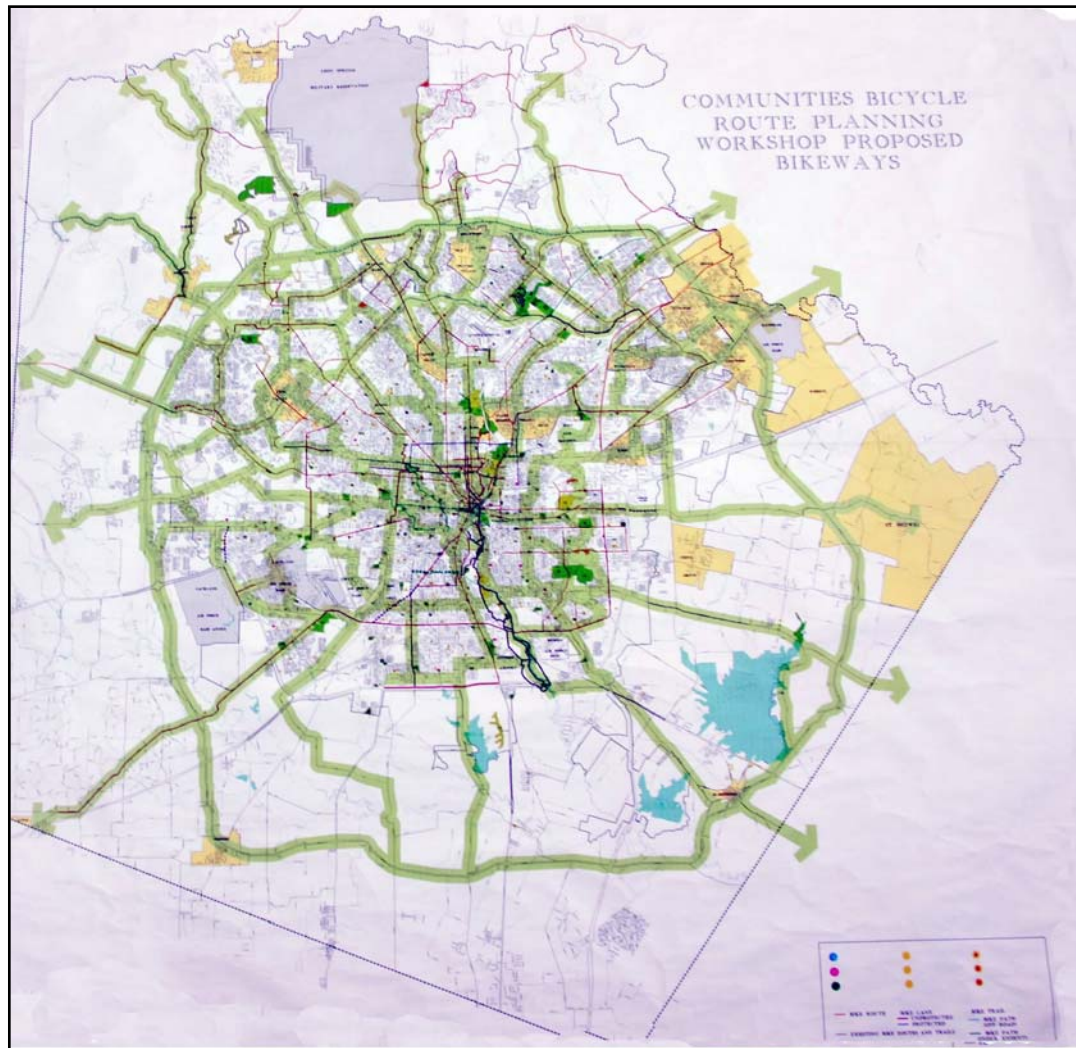
A. MPO Bicycle Mobility Plan (1994)

In December 1994 the San Antonio – Bexar County Metropolitan Planning Organization (MPO) approved a long-range Metropolitan Transportation Plan (TransVision 2015) which contained a Bicycle Mobility Plan. Goals of the 1994 Bicycle Mobility Plan were to 1) double bicycle ridership by 2005, 2) decrease the bicycle accident rate by 15% by 2005 and 3) increase the awareness of bicycling as a valid form of transportation throughout the community. The Bicycle Mobility Plan called for the creation of the MPO's Bicycle Mobility Task Force as well as identification of bicycling funding and the appointment of full-time bicycle coordinators within the City and County.



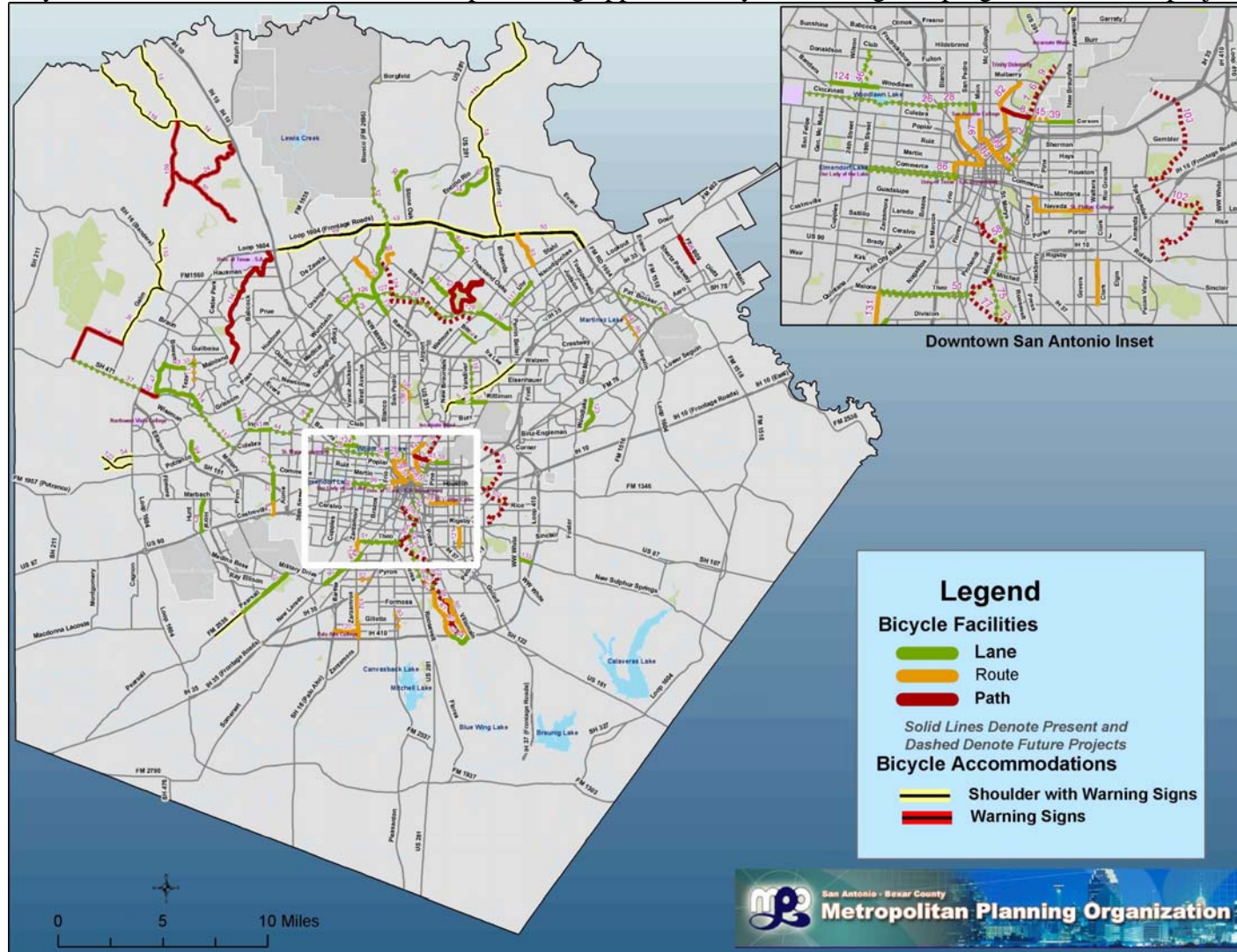
B. Community-Based Bicycle Planning Study (1997)

Throughout 1996 and 1997, the MPO funded the Community Based Bicycle Planning Study that built on the Bicycle Mobility Plan and recommended over 150 bicycle routes totaling 463 miles. Additionally it recommended adding 13 new bicycle corridors to the 1994 Bicycle Mobility Plan network.



C. Existing and Funded On-Road and Off-Road Bicycle Facilities

As of January 2004, the existing and programmed (i.e., funded) on-road bicycle network consists of approximately 190 miles of bicycle facilities and accommodations representing approximately 70 existing and programmed future projects.



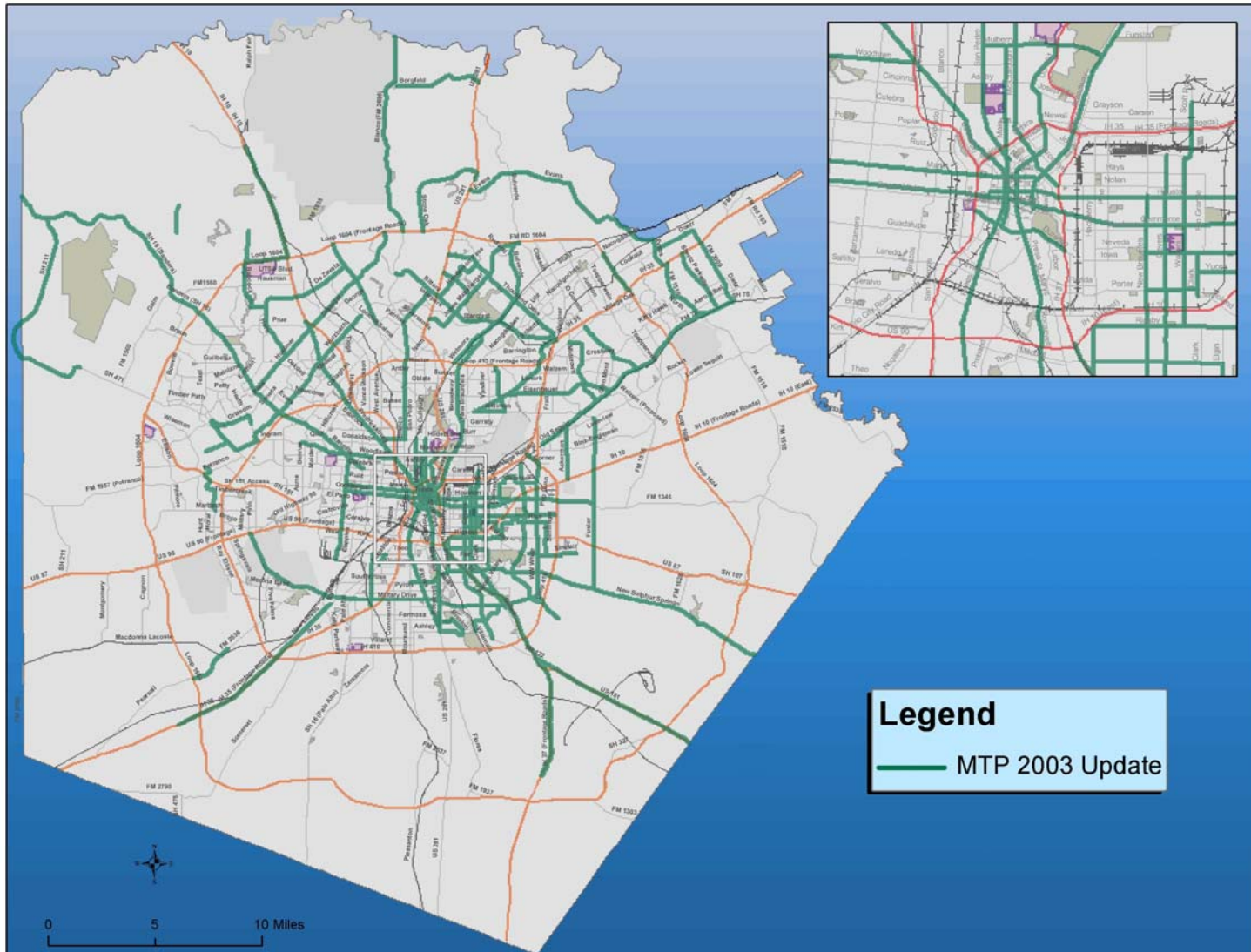
D. Bicycle Route Suitability Study

During 2000 and 2001, the MPO funded a Bicycle Route Suitability Study. The purpose of the study was to collect data on 1,000 miles of regional roadways and identify those routes most suitable for a regional bicycle network. The data was processed through a Bicycle Level of Suitability Model resulting in identifying 700 miles of potentially usable roadways within the region.



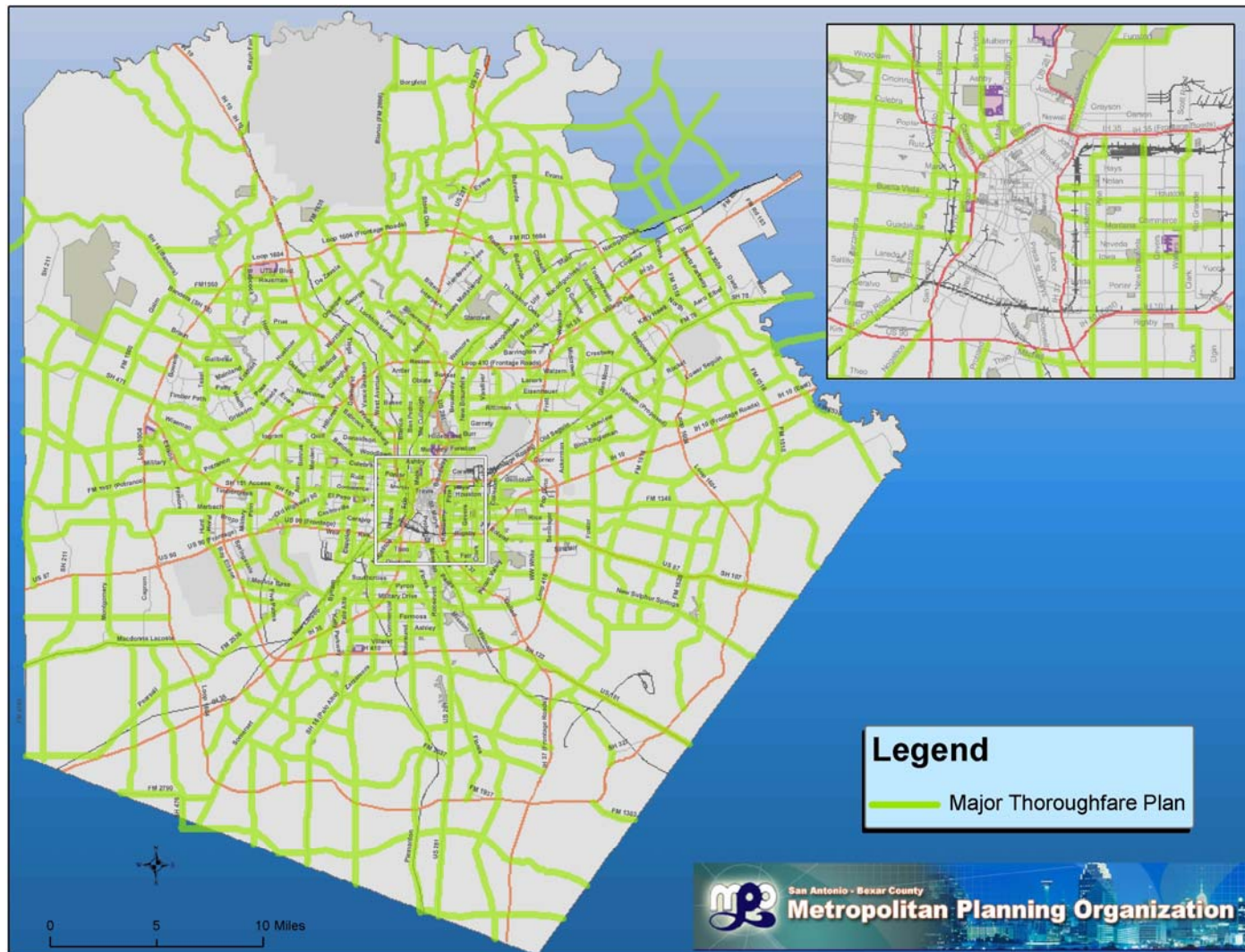
E. Metropolitan Transportation Plan Update Public Involvement

In October 2003, approximately 150 citizens and agency staff participated in the Metropolitan Transportation Plan Update process for Mobility 2030. The following bicycle network resulted from these citizen and technical work group sessions.



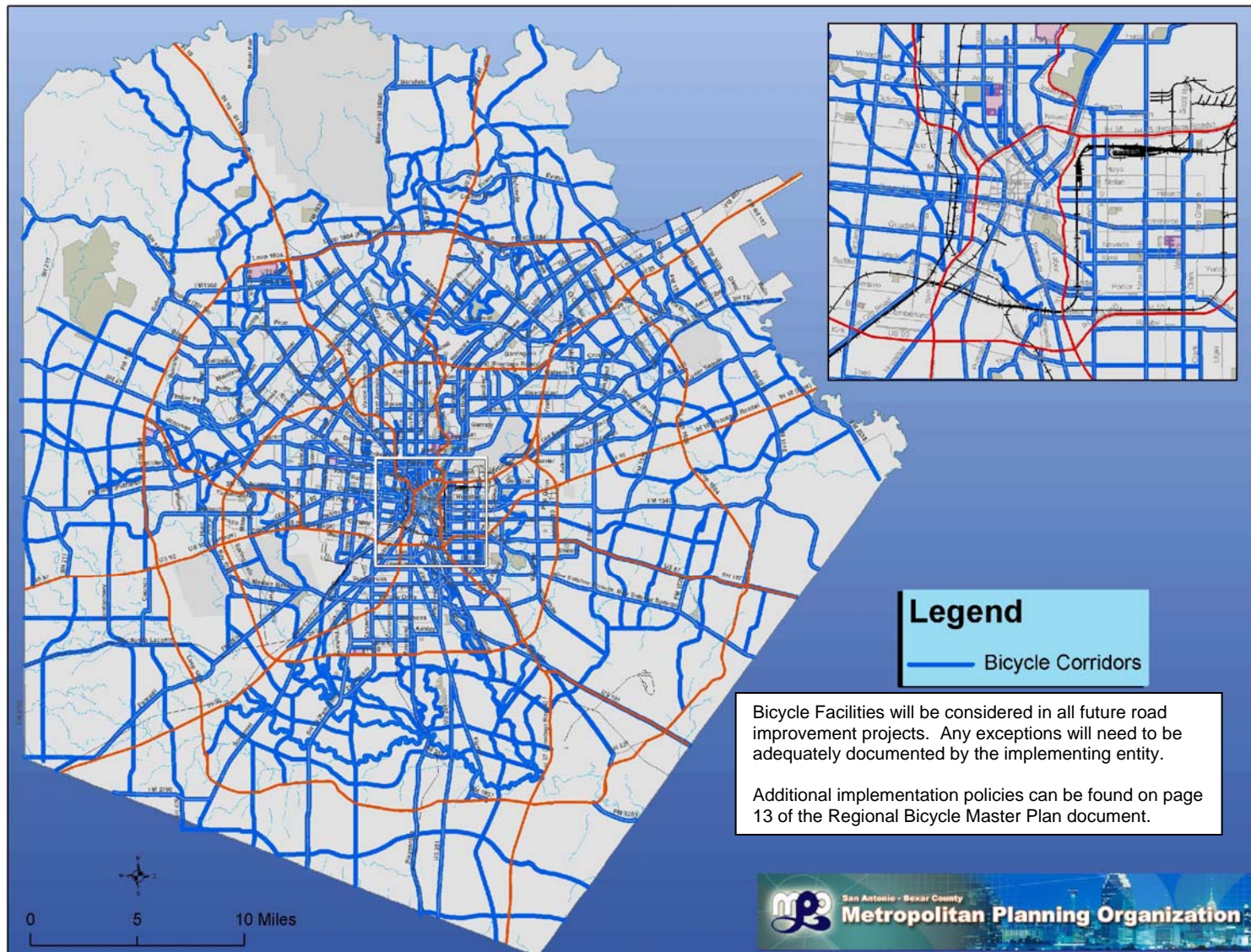
F. Major Thoroughfare Plan

The City of San Antonio's Major Thoroughfare Plan identifies future roadways that will be required for the city's future growth. The Bicycle Master Plan needs to incorporate the Major Thoroughfare Plan's routes to show where future bicycle facilities will be required.



G. Recommended Bicycle Master Plan Network

The total recommended bicycle network is comprised of existing and programmed bicycle facilities plus the bicycle portions of the previously mentioned plans and studies. It represents 10 years of agency and public input efforts to achieve the citizens' desires as stated in the City of San Antonio's Master Plan.



IX. IMPLEMENTATION

A. Funding the System

Financing bicycle facility construction is undoubtedly the greatest challenge in building the system but efforts that have started should be continued: (1) committing 6% of the Surface Transportation Program – Metropolitan Mobility funds for bicycle facilities, including bicycle facilities in new roadway construction projects and rehabilitation projects, and (2) local programs (restriping, bike routes, paved shoulders, and signage).

Existing funding programs could be used to build the bicycle system: (1) Community Development Block Grants, (2) City of San Antonio street maintenance fund, (3) General Obligation Bonds, (4) City of San Antonio Neighborhood Accessibility and Mobility Program and (5) the State of Texas' Transportation Enhancement Program.

New financing opportunities should also be pursued. This includes, but is not limited to: (1) developer built facilities, (2) public/private partnerships, (3) Advanced Transportation District, (4) bicycle licensing fees/registration fees (exclusively for bike facilities), and (6) vehicle registration fees. These financing strategies could be used to develop a local "Safe Routes to Schools" program.

The following table shows examples of revenue that could be generated by various levels of fees for vehicle registration and bicycle licensing. Adult bicycle licenses could rate a higher fee than juvenile bicycle licenses. Vehicle registration fees are based on 1,200,000 registered vehicles, and would be in addition to the fees currently collected (State legislation would be required to increase the current fees). Bicycle licenses are based on an estimated 500,000 bicycles (250,000 adult and 250,000 juvenile).

Table 2. Conceptual Funding Sources for Bicycle Facilities

Vehicle Registration Fee			Bicycle License Fee		
Number of Vehicles Registered	Annual Fee	Annual Revenue Generated	Number of Bicycles Registered	Annual Fee	Annual Revenue Generated
1,200,000	\$2.50	\$3,000,000	250,000 (Adult)	\$5.00	\$1,250,000
1,200,000	\$2.00	\$2,400,000	250,000 (Adult)	\$4.00	\$1,000,000
1,200,000	\$1.50	\$1,800,000	250,000 (Adult)	\$2.50	\$625,000
1,200,000	\$1.00	\$1,200,000	250,000 (Juvenile)	\$2.50	\$625,000
1,200,000	\$0.50	\$600,000	250,000 (Juvenile)	\$1.00	\$250,000
			250,000 (Juvenile)	\$0.50	\$125,000

B. Evaluation Process

Several evaluation measures are proposed to track the effectiveness of the bicycle network development and education and safety campaigns. These evaluation measures include:

- Incorporating the use of Geographical Information Systems to tally the number of miles of bicycle facilities annually
- Tracking and documenting bicycle-related public presentations
- Tracking and documenting bicycle-related stories in print and electronic media
- Tracking and mapping number of bicycle-related crashes/injuries/fatalities
- Measuring bicycle ridership increases through:
 - a. bicycle retailers
 - b. VIA Metropolitan Transit
 - 1. bicycle rack on buses counts
 - 2. tracking locker usage
 - c. local bike organizations
- Performing periodic surveys regarding the use of bicycle routes and lanes through:
 - a. Mailouts
 - b. Bicycle retailers
 - c. Print media
 - d. Electronic media

APPENDICES

Appendix A: **San Antonio – Bexar County Bicycle Mobility Plan, (BMP) – Long Range Plan (TransVision 2015), 1995**

Vision Statement:

“The San Antonio – Bexar County study area can be one where residents and visitors will choose to bicycle. Bicycling will be a pleasant, safe transportation alternative for trips of all kinds and segments of the population.”

Goals:

- To double the percentage of trips made by bicycle in the San Antonio – Bexar County area by 2005 and to continue the increase through 2015.
- To reduce the number of bicycle-related traffic accidents by 10% by 2005 and to continue the reduction through 2015.
- To increase the awareness of bicycling as a viable transportation alternative both in the planning community and the general public

Objectives:

- All new transportation facilities in the San Antonio – Bexar County area will accommodate, at a minimum, experienced cyclists.
- In key bicycle corridors, transportation facilities will accommodate all types of cyclists (skilled, basic, and children)
- The Bicycle Mobility Plan will identify strategies for overcoming barriers to bicycle travel in the San Antonio- Bexar County area.
- The Bicycle Mobility Plan will identify appropriate leadership roles for local governmental agencies in order to implement the plan.

Selected Action Steps:

- Establish an MPO Bicycle Mobility Task Force (BMTF) to coordinate and implement the Bicycle Mobility Plan.
- Identify a minimum level of funding for bicycle improvements to the existing roadway system.
- Encourage the inclusion of bicycle accommodations in all area roadway improvements.
- Promote state-of-the-art facility design.
- Development effective bicycle-related planning tools.
- San Antonio and Bexar County should appoint/hire full-time bicycle coordinators.
- Agencies should implement a “Bicycle Spot Improvement” program.
- San Antonio should change the Unified Development Code to insure developers provide appropriate bicycle accommodations in the future.

Appendix B: Bicycle References in City of San Antonio's Master Plan, 1997

Neighborhood Goals

Goal 5: Encourage development of the downtown area as a complete neighborhood to enhance its image to both visitors and residents.

Policy 5d: Continue to improve access to downtown by various modes of transportation including the construction of a multi-modal transportation hub.

- Create pedestrian ways, people mover systems, and bicycle trails to connect downtown with adjacent neighborhoods, open spaces, retail, medical and other support facilities.

Urban Design Goals

Goal 3: Develop and maintain a diversified and balanced citywide system of parks and open space.

Policy 3b: Plan and develop a citywide system of linear parks and hike and bike trails which incorporate drainage ways and open spaces which link parks, schools, institutions, and neighborhoods.

- Continue to develop hike and bike trails through the City's park system to connect neighborhoods, places of employment, school campuses, and historical and cultural attractions, where possible.
- Work with schools, neighborhood groups, and institutions to ensure that hike and bike trails, and linear parks are designed, constructed and maintained to meet national safety and accessibility standards.
- Develop a compact, durable map or booklet of maps illustrating the system of linear parks and hike and bike trails.
- Promote special events to encourage the use of bicycling, walking and jogging as alternative forms of transportation and recreation

Goal 5: Develop policies for various transportation modes that will increase access to employment centers, community services, and cultural, recreational, educational and commercial facilities; and decrease the reliance on single occupancy vehicles.

Policy 5a: Develop a transportation plan that promotes safety and links neighborhood destinations throughout the City and allows residents access to regional destinations.

- Study the feasibility of alternative transportation modes (e.g., rail, subway, bicycle) which will link suburban centers to downtown and other major destinations.

Policy 5b: Develop a system of complementary transportation modes which supports safe and efficient movement of people and goods, which results in an efficient pattern of urban development, and in active and vital neighborhoods.

- Evaluate and revise traffic engineering standards, as appropriate, to provide for traffic circles, local and collector offset street intersections, parallel and head in parking and bike lanes.

Policy 5d: Expand the overall capacity for the movement of people by including alternative transportation modes in the design of the City's infrastructure and utility systems.

- Incorporate alternative transportation modes into the design of the existing transportation network.
- Actively support a regional transportation system that expands capacity by using linked transportation networks such as light rail and bus networks, high occupancy vehicle lanes, bicycle network, and pedestrian-ways.

Policy 5h: Promote the safe use of bicycles as an efficient and environmentally sound means of recreation and transportation by encouraging a citywide network of lanes, trails, and storage facilities.

- Develop and implement a comprehensive and community based bicycle transportation plan which serves all areas of the City.
- Consider bicycling in the design and construction of public streets.
- Assess the feasibility of joint pedestrian and bicycle usage in existing public facilities, and promote such usage where feasible.
- Promote partnerships among public agencies, businesses, bicycle organizations and citizens to improve bicycle access and facilities.
- Include bicycle parking requirements in City regulations for cultural and recreational facilities and other major destinations.
- Encourage VIA to integrate bicycling with public transit (e.g. bicycle racks on front of VIA buses).
- Advocate bicycle issues by applying for grants, encouraging citizen participation in promoting bicycling opportunities, promoting bike safety and education, and overseeing implementation of master plan policies regarding bicycling.
- Identify the City's bicycle lanes and trails and publish a bicycle map for the public.
- Establish recreational bicycle lanes, trails, and parking where appropriate, within City facilities.
- Continue to develop safety regulations as needed for the safe use of bicycles.

Appendix C: Bicycle Element of the San Antonio – Bexar County MPO’s Metropolitan Transportation Plan (Mobility 2025), 1999

Chapter 4 of Mobility 2025 provided an update to the 1995 Bicycle Mobility Plan. Some of the significant findings during the update are listed below.

Mobility 2025 Public Input regarding bicycling:

- Key problems areas
 - No safe places to ride.
 - Poor street pavement conditions.
 - Low status of cyclists in eyes of motorists.
 - Lack of support facilities.
 - Sprawling development.
 - Agency neglect in terms of personnel resources and funding.
- Key needs
 - Identify a comprehensive bicycle network that provides safe and reasonably direct access for bicycling to work, school, and other major destinations.
 - Improve public awareness of the benefits of cycling.
 - Improve the education of both cyclists and motorists in the SA-BC area regarding sharing the road.

Appendix D: Existing Laws and Ordinances

The Regional Bicycle Master Plan will observe all applicable federal, state and local ordinances and laws governing bicycle ridership and usage. Listed below are the major legal elements to be observed.

Federal

Title 23 United States Code

§217. Bicycle transportation and pedestrian walkways

Planning

- In General -- Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State in accordance with sections 134 and 135, respectively. Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted.
- Safety Considerations --Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians. Safety considerations shall include the installation, where appropriate, and maintenance of audible traffic signals and audible signs at street crossings.
- Use Of Motorized Vehicles --Motorized vehicles may not be permitted on trails and pedestrian walkways under this section, except for maintenance purposes; when snow conditions and State or local regulations permit, snowmobiles; motorized wheelchairs; when State or local regulations permit, electric bicycles; and such other circumstances as the Secretary deems appropriate.

Definitions

- Bicycle transportation facility --The term 'bicycle transportation facility' means a new or improved lane, path, or shoulder for use by bicyclists and a traffic control device, shelter, or parking facility for bicycles.
- Electric bicycle --The term 'electric bicycle' means any bicycle or tricycle with a low-powered electric motor weighing under 100 pounds, with a top motor-powered speed not in excess of 20 miles per hour.
- Pedestrian --The term 'pedestrian' means any person traveling by foot and any mobility impaired person using a wheelchair.
- Wheelchair --The term 'wheelchair' means a mobility aid, usable indoors, and designed for and used by individuals with mobility impairments, whether operated manually or motorized.

Protection of Non-motorized Transportation Traffic --

The Secretary shall not approve any project or take any regulatory action under this title that will result in the severance of an existing major route or have significant adverse impact on the safety for non-motorized transportation traffic and light motorcycles, unless such project or regulatory action provides for a reasonable alternate route or such a route exists.

Railway-Highway Crossings -- Bicycle Safety

In carrying out projects under this section, a State shall take into account bicycle safety.

State of Texas Bicycle Rules

Cyclists in traffic are drivers and must follow the rules of the road, give signals, obey signs and lights, yield the right-of-way and keep a sharp lookout for danger. The following laws apply:

- A person riding a bicycle shall not ride other than upon or astride a permanent and regular seat.
- No bicycle shall be used to carry more persons at one time than the number for which it is designed or equipped.
- No person riding a bicycle shall attach the same or himself to any streetcar or vehicle upon a roadway.
- A person operating a bicycle upon a roadway at less than the speed of the other traffic on the roadway at that time shall ride as near as practicable to the right curb or edge of the roadway except when a) overtaking and passing another vehicle proceeding in the same direction; b) the rider is preparing for a left turn at an intersection onto a private drive, road, or driveway; and c) conditions on the roadway, including fixed or moving objects, parked or moving vehicles, pedestrians, animals, surface hazards, or lanes less than 14 feet wide make it unsafe to ride next to the right curb or edge of the roadway.
- Persons riding two abreast shall not impede the normal and reasonable flow of traffic on the roadway. Persons riding two abreast on a laned roadway must ride in a single lane.
- A person operating a bicycle on a one-way roadway with two or more marked traffic lanes may ride as near as practicable to the left curb or edge of the roadway.
- No person operating a bicycle shall carry any package, bundle, or article which prevents the driver from keeping at least one hand upon the handlebars.

- Every bicycle in use at nighttime shall be equipped with the following:
 1. A lamp on the front that shall emit a white light visible at a distance of at least 500 feet to the front.
 2. A red reflector on the rear of a type approved by the Dept. of Public Safety which shall be visible from all distances up to 300 feet. A red light on the rear, visible from a distance of 500 feet, may be substituted for the reflector.
- Every bicycle shall be equipped with a brake that will enable the operator to make the brake wheels skid on dry, level clean pavement.
- Bicycles may be ridden on roadway shoulders, except where expressly prohibited by law.
- Vehicle means device, in, upon or by which any person or property is or may be transported or drawn upon highway, excepting devices used exclusively upon stationary rails or tracks

SOURCE: Texas Drivers Handbook; Texas Department of Public Safety

City of San Antonio Bicycle Ordinances

City Ordinance 19-2: It is unlawful for any person to drive or propel or park any vehicle (including a bicycle) upon any sidewalk, with the exception that law enforcement officers and emergency medical personnel while in the performance of their duties are exempt, and any person while parking a bicycle in city installed bicycle racks is also exempt.

City Ordinance 19-450: No person shall engage in, participate in, organize, promote, form or start, or cause or allow the same to be done, any run, walk or cycling event unless a permit, therefore shall have first been obtained from the Chief of Police. For purposes of this article the term "cycling event" shall not include bicycle touring or recreational uses regulated by state law.

City Ordinance 19-281: It is unlawful to ride a bicycle over, across or upon any street or plaza in the city while such street or plaza is in the course of repair and has been closed to public travel, or after repairs have been completed but before such street or plaza shall have been opened by the city to public travel.

City Ordinance 19-285: Prohibits cyclists, skaters, etc. from clinging to motor vehicles.

Appendix E: Roadway Right-of-Way Requirements

Function	Facility Type	Facility Width	Current ROW Requirement	Revised ROW Requirement
SUPER ARTERIAL A	Shared Path [Both Sides]	8' – 10'	200' – 250'	200' – 250'
	Shared Path [One Side]	10' – 12'	200' – 250'	200' – 250'
	Bike Path [Both Sides]	5' – 6'	200' – 250'	200' – 250'
	Bike Lane [Both Sides]	5' – 6'	200' – 250'	200' – 250'
SUPER ARTERIAL B	Shared Path [Both Sides]	8' – 10'	200' – 250'	200' – 250'
	Shared Path [One Side]	10' – 12'	200' – 250'	200' – 250'
	Bike Path [Both Sides]	5' – 6'	200' – 250'	200' – 250'
	Bike Lane [Both Sides]	5' – 6'	200' – 250'	200' – 250'
ENHANCED PRIMARY ARTERIAL	Shared Path [Both Sides]	8' – 10'	144' – 166'	144' – 166'
	Shared Path [One Side]	10' – 12'	144' – 166'	144' – 166'
	Bike Path [Both Sides]	5' – 6'	144' – 166'	144' – 166'
	Bike Lane [Both Sides]	5' – 6'	144' – 166'	144' – 166'
PRIMARY ARTERIAL A	Shared Path [Both Sides]	8' – 10'	120'	120'
	Shared Path [One Side]	10' – 12'	120'	120'
	Bike Path [Both Sides]	5' – 6'	120'	120'
	Bike Lane [Both Sides]	5' – 6'	120'	120'
PRIMARY ARTERIAL B	Bike Route / Shared Lane	Wide outside lane	70' – 120'	70' – 120'
ENHANCED SECONDARY ARTERIAL	Shared Path [Both Sides]	8' – 10'	120' – 142'	120' – 142'
	Shared Path [One Side]	10' – 12'	120' – 142'	120' – 142'
	Bike Path [Both Sides]	5' – 6'	120' – 142'	120' – 142'
	Bike Lane [Both Sides]	5' – 6'	120' – 142'	120' – 142'
SECONDARY ARTERIAL A	Shared Path [Both Sides]	8' – 10'	86'	96'
	Shared Path [One Side]	10' – 12'	86'	96'
	Bike Path [Both Sides]	5' – 6'	86'	96'
	Bike Lane [Both Sides]	5' – 6'	86'	96'
SECONDARY ARTERIAL B	Bike Route / Shared Lane	Wide outside lane	70' – 86'	70' – 96'
COLLECTOR STREET	Bike Lane (Both Sides)	5' – 6'	70'	70'
	Bike Route / Shared Lane	Wide outside lane	70'	70'

Note: Yellow shading indicates proposed ROW requirements different from current requirements.

Appendix F. List of Existing and Funded Future On-Road Bicycle Facilities as of January 2004

MapID	NAME	LIMIT FROM	LIMIT TO	AGENCY	MILES	TYPE	ROAD_STATU	Location
1	Alamo/Broadway Corridor	On Josephine Street from Avenue B	Broadway	CoSA	0.06	Route	Complete	On Road
2	Alamo/Broadway Corridor	On Broadway from Josephine	Brooklyn	CoSA	0.98	Lane	Future	On Road
3	Alamo/Broadway Corridor	On Brooklyn from Broadway	Avenue E	CoSA	0.14	Route	Future	On Road
4	Alamo/Broadway Corridor	On Avenue E from Brooklyn	Third Street	CoSA	0.30	Lane	Future	On Road
5	Austin Highway (Loop 368)	Broadway	Walzem	TxDOT	2.90	Shoulder with Warning Signs	Complete	On Road
10	Babcock Road	Camp Bullis Road	Scenic Loop Road	BxCO	4.08	Shoulder with Warning Signs	Complete	On Road
11	Bitters	Broadway	Nacogdoches	CoSA	0.74	Lane	Complete	On Road
12	Blanco	Loop 410	Wilderness Oak	TxDOT	2.01	Lane	Future	On Road
13	Blanco (FM 2696)	West Avenue	Loop 1604	TxDOT	4.79	Lane	Complete	On Road
14	Boerne Stage Road	Scenic Loop Road	IH 10	BxCO	4.28	Shoulder with Warning Signs	Complete	On Road
15	Boerne Stage Road	Scenic Loop Road	Kendall County Line	BxCO	4.31	Shoulder with Warning Signs	Complete	On Road
16	Broadview	Bandera	N. Westberry	CoSA	0.81	Lane	Future	On Road
17	Bulverde	Loop 1604	Evans	BxCO	3.51	Shoulder with Warning Signs	Complete	On Road
18	Bulverde Road	Evans Road	Smithson Valley Road	BxCO	3.41	Shoulder with Warning Signs	Complete	On Road
19	Caliza	Encino Rio	Evans	CoSA	1.48	Lane	Complete	On Road
20	Callaghan	US 90	Commerce	CoSA	2.58	Lane	Complete	On Road
21	Callaghan	Old Highway 90	US 90	CoSA	1.36	Route	Complete	On Road
22	Callaghan	Commerce	Culebra	CoSA	1.05	Lane	Future	On Road
23	Churchill Estates	Huebner	Blanco	CoSA	1.44	Route	Complete	On Road
24	Cielo Vista	I-10	Babcock	BxCO	3.59	Shoulder with Warning Signs	Complete	On Road
25	Cincinnati (W)	Camino Santa Maria	Navidad	CoSA	2.49	Lane	Future	On Road
26	Cincinnati Avenue (East)	Navidad	Grant	CoSA	0.71	Lane	Future	On Road
27	Cincinnati Avenue (East)	On Grant from Cincinnati	Ashby	CoSA	0.07	Lane	Complete	On Road
28	Cincinnati Avenue (East)	On Ashby from Grant	Belknap	CoSA	0.76	Lane	Future	On Road
29	Cincinnati Avenue (East)	On Belknap from Ashby	San Antonio College	CoSA	0.14	Lane	Complete	On Road
30	Crescent Oaks	Hardy Oaks	Knight Cross	CoSA	1.19	Lane	Complete	On Road
31	Cross Canyon	Heimer	Jones-Maltsberger	CoSA	1.16	Lane	Complete	On Road
32	Culebra Rd (FM 471)	Les Harrison	Loop 1604	TxDOT	2.47	Shoulder with Warning Signs	Complete	On Road
33	Dover Ridge	Weybridge	Tezel	CoSA	1.52	Lane	Complete	On Road
34	Encino Rio	Encino Ledge	Caliza	CoSA	1.14	Lane	Complete	On Road

MapID	NAME	LIMIT_FROM	LIMIT_TO	AGENCY	MILES	TYPE	ROAD_STATU	Location
35	Espada	Loop 410	Villamain	CoSA	1.17	Lane	Complete	On Road
36	FM 1560	Galm	Through Bandera to Scenic Loop	TxDOT	8.36	Shoulder with Warning Signs	Complete	On Road
37	FM 471	Loop 1604	Galm	TxDOT	3.51	Lane	Future	On Road
38	Galm Road	FM 471(Culebra)	FM 1560	BxCO	3.57	Shoulder with Warning Signs	Complete	On Road
39	Grayson	Pine	New Braunfels	CoSA	0.50	Lane	Complete	On Road
40	Henderson Pass	Turkey Point	Gold Canyon	CoSA	0.67	Lane	Complete	On Road
41	Henderson Pass	Thousand Oaks	Turkey Point	CoSA	0.71	Lane	Complete	On Road
42	Horal	Marbach	U.S. 90	CoSA	1.57	Lane	Complete	On Road
43	Ingram	Loop 410	Callaghan	CoSA	0.95	Lane	Complete	On Road
44	Ingram	Callaghan	Benrus	CoSA	0.77	Lane	Future	On Road
45	Josephine	Broadway	Grayson	CoSA	0.50	Route	Future	On Road
46	Kampmann	Club	Woodlawn	CoSA	1.10	Lane	Future	On Road
47	Les Harrison	Culebra	Dover Ridge	CoSA	1.43	Lane	Complete	On Road
48	Lockhill-Selma	George	Wurbach	CoSA	0.77	Lane	Complete	On Road
49	Loop 1604 (Frontage Roads)	IH 10	US 281	TxDOT	8.00	Shoulder with Warning Signs	Complete	On Road
50	Loop 1604 (Frontage Roads)	US 281	FM 2522 (Nacogdoches Rd)	TxDOT	8.00	Shoulder with Warning Signs	Complete	On Road
51	Malone Ave./Theo Ave.	Zarzamora Street	Concepcion Park	CoSA	2.86	Lane	Future	On Road
52	Mayfield	Zarzamora	IH 35	CoSA	0.67	Route	Future	On Road
54	Military Dr	Loop1604	East end of Medio Creek Bridge	BxCO	1.56	Lane	Complete	On Road
56	Mission Trails "Eagleland Project" "Phase 4"	Eagleland	Alamo Street	CoSA	0.95	Lane	Future	On Road
58	Mission Trails "Eagleland Project" "Phase 4"	Eagleland	Alamo Street	CoSA	1.04	Lane	Future	On Road
61	Mission Trails "Phase 1"	Mission Espada	Espada Dam	CoSA	1.42	Route	Complete	On Road
62	Mission Trails "Phase 1"	Mission Espada	Espada Dam	CoSA	1.98	Route	Complete	On Road
63	Mission Trails "Phase 1"	Mission Espada	Espada Dam	CoSA	2.47	Route	Complete	On Road
64	Mission Trails "Phase 1"	LOOP 410	San Antonio River	CoSA	0.92	Lane	Complete	On Road
66	Mission Trails "Phase 2"	Napier	White	CoSA	0.82	Lane	Future	On Road
67	Mission Trails "Phase 2"	Pyron	Mission Road	CoSA	0.43	Route	Future	On Road
68	Mission Trails "Phase 2"	Pyron	Mission Road	CoSA	0.74	Lane	Future	On Road
70	Mission Trails "Phase 2"	Pyron	Mission Road	CoSA	0.23	Lane	Future	On Road
75	Mission Trails "Phase 3"	Hart	Mitchell	CoSA	1.49	Lane	Future	On Road

MapID	NAME	LIMIT_FROM	LIMIT_TO	AGENCY	MILES	TYPE	ROAD_STATU	Location
78	Montana/Nevada	Cherry Street	St. Philip's College	CoSA	1.31	Route	Complete	On Road
79	N.W. Military (FM1535)	Braesview	Huebner	TxDOT	2.50	Lane	Future	On Road
80	New Laredo Hwy (SP 353)	S.W. Military	Zarzamora	TxDOT	2.73	Lane	Complete	On Road
81	Nogalitos (LP 353)	Zarzamora	Division	TxDOT	0.53	Lane	Complete	On Road
82	North St. Mary's Street	Huisache Avenue	Lexington	CoSA	1.94	Route	Complete	On Road
83	O'Connor	Stahl	Loop 1604	CoSA	0.13	Route	Complete	On Road
84	Old Cimmarron Trail (Ph 1)	Kitty Hawk	Guilford Forge	CoSA	0.50	Route	Future	On Road
85	Old Cimmarron Trail (PH 2)	Guilford Forge	FM 1976	CoSA	0.70	Route	Future	On Road
86	OLLU to UTSA Downtown Campus	On Buena Vista and Commerce from 19th Street	Frio Street	CoSA	3.91	Lane	Future	On Road
87	OLLU to UTSA Downtown Campus	On Frio from Buena Vista	Commerce	CoSA	0.05	Lane	Future	On Road
88	OLLU to UTSA Downtown Campus	On 19th Street from Commerce	Monterry	CoSA	0.14	Lane	Future	On Road
89	Partridge Trail/Silver Spruce	Forest Country	Many Oaks	CoSA	0.78	Route	Complete	On Road
90	Pat Booker (SH 218)	Loop 1604	FM 78	TxDOT	2.68	Lane	Future	On Road
91	Pearsall Rd (FM 2536)	IH 410	Covel	TxDOT	1.72	Shoulder with Warning Signs	Complete	On Road
92	Pearsall Rd (FM 2536)	Loop 13	IH 410	TxDOT	3.72	Lane	Complete	On Road
93	Pleasanton	Moursund	Villaret	CoSA	0.91	Route	Future	On Road
94	Richland Hills	Potranco	Military	CoSA	1.05	Lane	Complete	On Road
95	Rittimen Rd	Austin Highway	Harry Wurzbach	CoSA	1.37	Lane	Complete	On Road
97	SAC to CBD	On Howard from Park Avenue	Euclid	CoSA	0.43	Route	Complete	On Road
98	SAC to CDB	On Euclid Street from Howard	Lexington Street	CoSA	0.12	Route	Complete	On Road
99	SAC to CDB	On Lexington Avenue from Euclid	Fourth Street	CoSA	0.57	Route	Complete	On Road
100	SAC to CDB	On Fourth Street from Lexington Avenue	Avenue E	CoSA	0.29	Route	Complete	On Road
101	SAC to UTSA	Myrtle to Flores to Martin to Medina		CoSA	2.49	Route	Complete	On Road
106	San Pedro Avenue Alternative	On Jackson Keller from San Pedro	McCullough	CoSA	0.57	Route	Future	On Road
107	San Pedro Avenue Alternative	On McCullough from Jackson Keller	Basse	CoSA	0.29	Route	Future	On Road
108	San Pedro Avenue Alternative	On McCullough from Basse	Howard/Contour	CoSA	0.20	Route	Future	On Road
109	Scenic Loop Road (Part 1)	North of City Limit of Grey Forest	Boerne Stage Road	BxCO	4.28	Shoulder with Warning Signs	Complete	On Road
110	Scenic Loop Road (Part 2)	SH 16 (Bandera)	Menchaca Road	BxCO	2.09	Shoulder with Warning Signs	Complete	On Road
111	Smithson Valley Road	Bulverde Road	Comal County Line	BxCO	5.64	Shoulder with Warning Signs	Complete	On Road
112	Tezel	Ridge Path	Old Tezel	CoSA	1.61	Route	Future	On Road

MapID	NAME	LIMIT_FROM	LIMIT_TO	AGENCY	MILES	TYPE	ROAD_STATU	Location
113	Timber	Grissom	Loop 410	TxDOT	2.52	Lane	Future	On Road
114	Timber Path Bikeway	Les Harrison	Grissom	CoSA	2.61	Lane	Complete	On Road
115	Timberhill	Brookport	Border Brook	CoSA	0.48	Lane	Complete	On Road
116	Toutant Beauregard	Scenic Loop Road	Kendall County Line	BxCO	5.97	Shoulder with Warning Signs	Complete	On Road
117	Uhr	Higgins	Thousand Oaks	CoSA	1.37	Lane	Complete	On Road
118	Vandiver (North)	Loop 410	Austin Highway	CoSA	1.77	Lane	Future	On Road
119	Vandiver (South)	Austin Highway	Rittiman	CoSA	0.36	Lane	Future	On Road
120	Villaret	Zarzamora Street	Highway 16	CoSA	1.10	Route	Complete	On Road
121	Walters	Rigsby	Fair	CoSA	0.98	Route	Complete	On Road
122	Westcreek Oaks	Westcreek Oaks dead end(west end)	Loop 1604	BxCO	1.67	Lane	Complete	On Road
123	Woodlake	FM 78	Binz-Engleman	BxCO	1.59	Lane	Complete	On Road
124	Woodlawn	St. Cloud	Lake	CoSA	1.06	Lane	Complete	On Road
125	Wurzbach Parkway (1)	Lockhill Selma	Military	TxDOT	1.30	Lane	Complete	On Road
126	Wurzbach Parkway (2)	Military	Blanco	TxDOT	1.00	Lane	Complete	On Road
127	Wurzbach Parkway (3)	Blanco	West Avenue	TxDOT	1.50	Lane	Future	On Road
128	Wurzbach Parkway (4)	West Avenue	Jones-Maltsberger	TxDOT	1.72	Lane	Future	On Road
129	Wurzbach Parkway (5)	Jones Maltsberger	Wetmore	TxDOT	2.58	Lane	Future	On Road
130	Wurzbach Parkway (6)	Wetmore	Perrin Beitel	TxDOT	1.81	Lane	Complete	On Road
131	Zarzamora St. (North)	Theo Avenue/Malone Avenue	New Laredo Highway	CoSA	0.90	Route	Complete	On Road
132	Zarzamora St. (South)	IH 35	Loop 410	CoSA	2.05	Route	Complete	On Road

Appendix G. List of Existing and Funded Future Off-Road Bicycle Facilities as of January 2004

MapID	NAME	LIMIT_FROM	LIMIT_TO	AGENCY	MILES	TYPE	ROAD_STATUS	Location
6	Ave B (Central)	Mulberry	Avenue B	CoSA	0.24	Path	Future	Off Road
7	Ave. B (South)	Along Broadway from Lions Field	Josephine	CoSA	0.53	Path	Future	Off Road
8	Ave. B (South)	On Josephine form Ave. B	N. St. Mary's	CoSA	0.53	Path	Complete	Off Road
9	Ave.B (North)	Tuleta	Mulberry	CoSA	0.53	Path	Future	Off Road
53	Mcallister Park	Entrance	Entrance	CoSA	6.27	Path	Complete	Off Road
55	Mission Trails "Eagleland Project" "Phase 4"	Eagleland	Alamo Street	CoSA	0.50	Trail	Future	Off Road
57	Mission Trails "Eagleland Project" "Phase 4"	IH 10	Eagleland	CoSA	1.00	Path	Future	Off Road
59	Mission Trails "Phase 1"	Mission Espada	Espada Dam	CoSA	2.00	Path	Complete	Off Road
60	Mission Trails "Phase 1"	Mission Espada	Espada Dam	CoSA	0.25	Path	Complete	Off Road
65	Mission Trails "Phase 2"	Pyron	Mission Road	CoSA	0.11	Path	Future	Off Road
69	Mission Trails "Phase 2"	Espada Dam	.2 miles from Napier	CoSA	0.96	Trail	Future	Off Road
71	Mission Trails "Phase 2"	Pyron	Mission Road	CoSA	0.22	Path	Future	Off Road
72	Mission Trails "Phase 2"	Pyron	Mission Road	CoSA	1.56	Path	Future	Off Road
73	Mission Trails "Phase 2"	Pyron	Mission Road	CoSA	0.69	Trail	Future	Off Road
74	Mission Trails "Phase 3"	Hart	Mitchell	CoSA	0.21	Path	Future	Off Road
76	Mission Trails "Phase 3"	Hart	Mitchell	CoSA	1.50	Path	Future	Off Road
77	Mission Trails "Phase 3"	Hart	Mitchell	CoSA	1.50	Trail	Future	Off Road
96	Roy Richard	I-35	Woodland Oaks	Schertz	1.53	Path	Complete	Off Road
102	Salado Creek (Phase 1)	Comanche Park	Willow Springs Golf Course	CoSA	3.53	Path	Future	Off Road
103	Salado Creek (Phase 2)	Willow Springs Golf Course	Binz-Engleman	CoSA	2.88	Path	Future	Off Road
104	Salado Creek Bike Path	Blanco	Wetmore	CoSA	6.61	Path	Future	Off Road
105	San Antonio River	Guenther St.	Eagleland	CoSA	0.14	Path	Future	Off Road